

TECHNICAL MANUAL

**OPERATOR AND FIELD MAINTENANCE MANUAL INCLUDING REPAIR PARTS
AND SPECIAL TOOLS LIST**

FOR

**POWER UNIT, DIESEL ENGINE DRIVEN, 2 ½ TON TRAILER
MOUNTED, 60 kW, 50/60 Hz**

PU-805

(NSN: 6115-01-317-2134) (EIC: VF3)

PU-805B

(NSN: 6115-01-471-1508) (EIC: VF4)

**POWER UNIT, DIESEL ENGINE DRIVEN, 2 ½ TON TRAILER
MOUNTED, 60 kW, 400 Hz**

PU-806

(NSN: 6115-01-317-2133) (EIC: VNB)

PU-806B

(NSN: 6115-01-471-1506) (EIC: GJT)

**POWER PLANT, DIESEL ENGINE DRIVEN, 2 ½ TON TRAILER
MOUNTED, 60 kW, 50/60 Hz**

AN/MJQ-41

(NSN: 6115-01-303-7896) (EIC: VF2)

AN/MJQ-41B

(NSN: 6115-01-474-3776) (EIC: VD6)

***SUPERSEDURE NOTICE** - This manual supersedes TM 9-6115-663-13&P dated 15 October 1993. including all changes.

DISTRIBUTION STATEMENT A - Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY
31 MAY 2010

WARNING SUMMARY

FIRST AID

For First Aid information, refer to FM 4-25.11.



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5 SAFETY STEPS TO FOLLOW IF SOMEONE IS THE VICTIM OF ELECTRICAL SHOCK

1

DO NOT TRY TO PULL OR GRAB THE INDIVIDUAL

2

IF POSSIBLE, TURN OFF THE ELECTRICAL POWER

3

IF YOU CANNOT TURN OFF THE ELECTRICAL POWER, PULL, PUSH OR LIFT THE PERSON TO SAFETY USING A DRY WOODEN POLE OR A DRY ROPE OR SOME OTHER INSULATING MATERIAL

4

SEND FOR HELP AS SOON AS POSSIBLE

5

AFTER THE INJURED PERSON IS FREE OF CONTACT WITH THE SOURCE OF ELECTRICAL SHOCK, MOVE THE PERSON A SHORT DISTANCE AWAY AND IMMEDIATELY START ARTIFICIAL RESUSCITATION

WARNING SUMMARY - Continued

WARNING AND CAUTION STATEMENTS

Warning and Caution statements have been strategically placed throughout this text prior to operating procedures, practices, or conditions considered essential to the protection of personnel (WARNING) or equipment and property (CAUTION).

A WARNING or CAUTION will apply each time the related step is repeated. Prior to starting any task the WARNINGS or CAUTIONS included in the text for that task must be reviewed and understood. Refer to the materials list at the beginning of the appropriate manual section for materials used during maintenance of this equipment. This warning summary contains the WARNINGS and CAUTIONS included in the manual. The detailed warnings for hazardous materials only are listed separately in the warning summary as the "Hazardous Materials Warnings" section.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing inspection of load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High Voltage is produced when this generator set is in operation. Ensure engine control and DEAD CRANK switches are set to OFF, negative battery cable is disconnected, and unit is completely shut down and free of any power source before attempting any troubleshooting or maintenance on unit. Failure to comply may cause injury or death to personnel.

WARNING

Ensure nuts on ground terminals are properly secured creating a good ground. Failure to comply with this warning can cause injury or death to personnel.

WARNING SUMMARY - Continued

WARNING

High voltage is produced when the generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator set, switch box or cables, unless specifically directed otherwise in the troubleshooting procedures. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Dangerous voltage exists on live circuits. Always observe precautions and never work alone. Failure to comply with this warning can cause injury or death to personnel.

WARNING

A qualified technician must make the power connections and perform all continuity checks. The power source may be a generator or commercial power. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Prior to making any connections for parallel operation, ensure that there is no input to the load and that the generator sets are shut down. Failure to comply with this warning can cause injury or death to personnel.

WARNING

If it is necessary to move a generator set which has been operating in parallel with another generator set, shut down remaining generator set connected to the load, prior to removing load and ground cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Diesel fuel is flammable and toxic to eyes, skin, and respiratory tract. Skin and eye protection are required when working in contact with diesel fuel. Avoid repeated or prolonged contact. Provide adequate ventilation. Operators are to wash exposed skin and change chemical soaked clothing promptly if exposed to fuel. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Fuels used in the generator set are flammable. Do not smoke or use open flames when performing maintenance. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

WARNING

Fuels used in the generator set are flammable. When filling the fuel tank, maintain metal-to-metal contact between filler nozzle and fuel tank opening to eliminate static electrical discharge. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

WARNING

Hot engine surfaces from the engine and generator circuitry are possible sources of ignition. When hot refueling with DF-1, DF-2, JP5 or JP8, avoid fuel splash and fuel spill. Do not smoke or use open flame when performing refueling. Remember PMCS is still required. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

WARNING SUMMARY - Continued

WARNING

Cooling system operates at high temperature and pressure. Contact with high pressure steam and/or liquids can result in burns and scalding. Shut down generator set, and allow system to cool before performing checks, services and maintenance, or wear gloves and additional protective clothing and goggles as required. Failure to comply with this warning can cause injury or death to personnel.

WARNING

In extreme cold weather, skin can stick to metal. Avoid contacting metal items with bare skin in extreme cold weather. Failure to comply with this warning can cause injury to personnel.

WARNING

Operating the generator set exposes personnel to a high noise level. Hearing protection must be worn when operating or working near the generator set when the generator set is running. Failure to comply with this warning can cause hearing damage to personnel.

WARNING

Exhaust discharge contains deadly gases including carbon monoxide. DO NOT operate generator set in enclosed areas unless exhaust discharge is properly vented outside. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Hot exhaust gases can ignite flammable materials. Allow room for safe discharge of hot gases and sparks. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Top housing panels and exhaust system can get very hot. Shut down generator set, and allow system to cool before performing checks, services and maintenance. Failure to comply with this warning can cause severe burns and injury to personnel.

WARNING

Top housing panels and exhaust system can get very hot. When performing DURING PMCS, wear gloves and additional protective clothing as required. Failure to comply with this warning can cause severe burns and injury to personnel.

WARNING

Exercise extreme caution when performing DURING PMCS checks inside engine compartment. Avoid contact with moving or hot engine parts. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Batteries give off a flammable gas. Do not smoke or use open flame when performing maintenance. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

WARNING

Battery acid can cause burns to unprotected skin. Wear safety goggles and chemical gloves and avoid acid splash while working on batteries. Failure to comply with this warning can cause injury to personnel.

WARNING SUMMARY - Continued

WARNING

Do not disconnect trailer from towing vehicle before hand brakes are set and front landing leg and rear support leg lowered. Failure to comply with this warning can cause injury or death to personnel from trailer tipping or rolling, and damage to the equipment.

WARNING

If trailer is not coupled to towing vehicle, ensure that wheels are securely chocked. Failure to comply with this warning can cause trailer to roll, resulting in injury to personnel and damage to equipment.

WARNING

Before performing any maintenance that requires climbing on or under trailer, make sure that trailer handbrakes are set, trailer front landing leg/support leg is lowered, and leveling support jack is lowered. Failure to comply with this warning can cause injury or death to personnel from trailer suddenly rolling or tipping.

WARNING

Steel strapping used in packaging of the power plant/power unit has sharp edges. Wear gloves and use care when cutting and handling steel strapping. Failure to comply with this warning can cause injury to personnel.

WARNING

Use the aid of an assistant when removing the fender, splash guard, and switch box as an assembly. Failure to comply with this warning can cause injury to personnel.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 6000 pounds (3176 kg). Do not stand or put arms, legs, or any part of the body under hoisted load. Do not permit generator set to swing. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

WARNING

Impact disk must be tightened to end of threads on rod. Also, lockwasher and nut must be tightened firmly against impact disk. Failure to comply with this warning can cause injury to personnel, and damage to the equipment.

WARNING

Do not attempt to seat a lockring when tire is inflated. Improperly seated lockring could fly off. Failure to comply with this warning can cause injury to personnel.

WARNING

Solvent used to clean parts is potentially dangerous to personnel and property. Clean parts in a well ventilated area. Avoid inhalation of solvent fumes. Wear goggles and rubber gloves to protect eyes and skin. Wash exposed skin thoroughly. Do not smoke or use near open flame or excessive heat. Failure to comply with this warning can cause injury to personnel, and damage to the equipment.

WARNING SUMMARY - Continued

HAZARDOUS MATERIALS WARNINGS

This publication describes physical and chemical processes which may require the use of chemicals, or other commercially available material. The user of this publication should obtain the material safety data sheets (Occupational Safety and Health Act (OSHA) Form 20 or equivalent) from the manufacturer or suppliers of materials to be used. The user must become completely familiar with the manufacturer/supplier information and adhere to the procedures, recommendations, warnings, and cautions of the manufacturer/supplier for the safe use, handling, storage, and disposal of the materials. The following are general safety precautions and instructions that people must understand and apply during many phases of operation and maintenance to ensure personal safety and health and the protection of DOD property. Portions of this will be repeated elsewhere in this publication for emphasis.

Warnings for hazardous material in this manual are designed to warn personnel of hazards associated with such items when they come in contact with them during actual use.

For each hazardous material used, a material safety data sheet (MSDS) is required to be provided and available for review by users. Consult your local safety and health staff concerning any questions on hazardous chemicals, MSDSs, personal protective equipment requirements, and appropriate handling and emergency procedures.

LIST OF EFFECTIVE PAGES / WORK PACKAGES

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Date of issue for the original manual is:

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HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 31 MAY 2010

TECHNICAL MANUAL

OPERATOR AND FIELD MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST

POWER UNIT, DIESEL ENGINE DRIVEN, 2 ½ TON TRAILER MOUNTED, 60 kW, 50/60 Hz

PU-805

(NSN: 6115-01-317-2134) (EIC: VF3)

PU-805B

(NSN: 6115-01-471-1508) (EIC: VF4)

POWER UNIT, DIESEL ENGINE DRIVEN, 2 ½ TON TRAILER MOUNTED, 60 kW, 400 Hz

PU-806

(NSN: 6115-01-317-2133) (EIC: VNB)

PU-806B

(NSN: 6115-01-471-1506) (EIC: GJT)

POWER PLANT, DIESEL ENGINE DRIVEN, 2 ½ TON TRAILER MOUNTED, 60 kW, 50/60 Hz

AN/MJQ-41

(NSN: 6115-01-303-7896) (EIC: VF2)

AN/MJQ-41B

(NSN: 6115-01-474-3776) (EIC: VD6)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Reports, as applicable by the requiring Service, should be submitted as follows:

(A) Army - Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) located in the back of this manual, directly to: Commander, U.S. Army CECOM Life Cycle Management Command (LCMC) Fort Monmouth, ATTN: AMSEL-LCL-ECM, Fort Monmouth, NJ 07703-5006. You may also send in your recommended changes via electronic mail or by fax. Our fax number is 732-532-1556, DSN 992-1556. Our e-mail address is MONM-AMSELLEOPUBSCHG@conus.army.mil. Our online web address for entering and submitting DA Form 2028s is <http://edm.monmouth.army.mil/pubs/2028.html>.

A reply will be furnished to you.

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How to Use This Manual

This manual contains operator and field maintenance instructions for the power unit/power plant.

NOTE

Throughout the family of manuals, directional orientation in relation to the equipment is described from the point of view of the operator facing the operator's controls looking out over the equipment. From this perspective, the end of the equipment containing the operator's controls will be referred to as the rear.

This manual provides operating procedures, troubleshooting, maintenance, and supporting information required to operate and maintain the power unit/power plant. Listed below are some of the features included in this TM to help locate and use the provided information.

WORK PACKAGES

This TM has been organized using the WP format. Each chapter contains a series of WPs rather than sections and paragraphs. Each WP is designed to stand alone as a complete information module; if the user keeps the section(s) of this TM in a loose-leaf binder, the user will be able to remove just the WP needed to complete a specific task. Here are some WP features of which the user should be aware.

Each WP is numbered using a four-digit number beginning with WP 0001. WPs are numbered sequentially throughout the TM (ex. WP 0016. WP 0020. etc.). The Table of Contents lists each chapter and WP title as well as all figures and tables contained within each. Figures and tables are numbered sequentially for each WP.

The WP number is located at the top right of each page. It is also located at the bottom of the page with the WP page number included (0001-1 would be page 1 of the General Information WP (WP 0001, General Information)).

Each WP starts on a right-hand page. This is done so the user can remove a single WP from the paper TM if needed for a task. Blank pages are assigned a number, but it appears on the preceding or following page. For example, if page 0001-10 of a WP is blank, page 0001-9 will have the number 0001-9/10 blank; or if page 0001-1 of a WP is blank, page 0001-2 will have the number 0001-1 blank/2.

Each WP containing step-by-step maintenance or troubleshooting procedures will end with the words END OF TASK, and each WP ends with the statement END OF WORK PACKAGE. Think of each WP as a small, standalone TM.

Typographical conventions are as follows:

[Unload] indicates a soft key or a switch.

[Previous] + [Next] indicates two simultaneous key presses. [+] [-] indicates two sequential key presses.

References to equipment Data and Description Plates are printed as they appear on the equipment whenever possible.

Warnings, Cautions and Notes Definitions

Warnings, cautions, notes, chapter titles, and paragraph headings are printed in bold type. Icons related to warnings are shown directly above the warning text.

The following definitions apply to WARNINGS, CAUTIONS and NOTES found throughout this publication. Warning, cautions and notes provide supplemental information. Personnel must understand and apply these Warnings, Cautions and Notes during many phases of operation and maintenance to ensure personnel safety and health and the protection of property. Portions of this information may be repeated in certain chapters of this publication for emphasis.

WARNING

A warning identifies a clear danger to the person doing that procedure.

CAUTION

A caution identifies risk of damage to the equipment.

NOTE

A note highlights essential procedures, conditions, or statements or conveys important instructional data to the user.

CHAPTER OVERVIEW

Chapter 1 - General Information, Equipment Description and Theory of Operation

Chapter 1 provides an introduction to the power unit/power plant. It is divided into three work packages, as follows:

General Information. This work package provides general information about this manual and the related forms and records. Instructions are provided for making equipment improvement recommendations. Coverage includes a reference to the TM that contains instructions on destruction of materiel to prevent enemy use. Also, a list of abbreviations and acronyms is provided. Also, a nomenclature cross-reference list is provided as well as a list of abbreviations and acronyms.

Equipment Description and Data. This work package describes capabilities, characteristics, and features. It provides basic equipment data and shows the locations of major components. Descriptions of the major components are also provided.

Theory of Operation. This work package provides functional descriptions of the equipment.

Chapter 2 - Operator Instructions

Chapter 2 provides instructions for operating the power unit/power plant. The chapter is divided into three work packages, as follows:

Description and Use of Operator Controls and Indicators. This work package provides references to the applicable generator set technical manuals and trailer technical manuals. Those references contain information on operator's controls and indicators for the equipment.

Operation Under Usual Conditions. This work package contains instructions for preparing the equipment for use and operation under normal conditions. Coverage includes connection instructions and preparation instructions for movement to a new worksite.

Operation Under Unusual Conditions. This work package provides unusual operating procedures or references to the applicable accompanying technical manuals.

Chapter 3 - Operator Troubleshooting Procedures

Chapter 3 covers troubleshooting procedures of the power unit/power plant to be performed by the operator. The chapter is divided as follows:

Operator Troubleshooting Index. This work package provides a troubleshooting introduction and malfunction/symptom index to direct you to the appropriate troubleshooting procedure at the operator level.

Operator Troubleshooting Procedures. This work package provides troubleshooting procedures and corrective actions that are to be performed by the operator. It also provides references to the applicable technical manuals.

Chapter 4 - Operator Maintenance Instructions

Chapter 4 covers maintenance procedures for the power unit/power plant to be performed by the operator. Its purpose is to provide you with the information that you need to keep the equipment in good operating condition. The chapter is divided as follows:

Operator PMCS Introduction Including Lubrication Instructions. This work package provides a detailed explanation of each table entry in the PMCS table along with applicable warnings, cautions and notes prior to starting on the PMCS procedures.

Operator PMCS Including Lubrication Instructions. This work package contains detailed instructions that the operator must perform before, during, and after preventive maintenance checks and services. Coverage includes all operator PMCS for the equipment and provides references to the applicable lubrication instructions.

Operator Maintenance Procedures. These work packages refer the operator to the preventive maintenance checks and services required by WP 0010.

Chapter 5 - Field Troubleshooting Procedures

Chapter 5 covers troubleshooting procedures of the power unit/power plant to be performed by field level maintenance. The chapter is divided as follows:

Field Troubleshooting Index. This work package provides a troubleshooting introduction and malfunction/symptom index to direct you to the appropriate troubleshooting procedure at the field maintenance level.

Field Troubleshooting Procedures. This work package covers troubleshooting procedures and corrective actions that are to be performed at the field maintenance level.

Chapter 6 - Field Maintenance

Chapter 6 provides instructions covering the power unit/power plant maintenance that must be performed at field level. The chapter is divided as follows:

Service Upon Receipt. This work package contains instructions for inspecting and servicing the equipment when it is received. It includes instructions for unpacking the equipment when it is received. The instructions also include unpacking and stowing the basic issue items that accompany the power unit/power plant. Also included are instructions on positioning the equipment for operation and connecting an external fuel source.

Field PMCS Introduction Including Lubrication Instructions. This work package provides a detailed explanation of each table entry in the PMCS table along with applicable warnings, cautions and notes prior to starting on the PMCS procedures.

Field PMCS Including Lubrication Instructions. This work package contains instructions covering the PMCS that must be performed at the field maintenance level. A table provides information on maintenance intervals and actions required. This work package also lists the applicable references that contain lubrication instructions for your equipment.

Field Maintenance Procedures. These work packages list the applicable references that cover field maintenance of the equipment.

Preparation for Storage or Shipment. This work package provides information on short-term, intermediate-term, and long-term storage.

Illustrated List of Manufactured Items. These work packages provide instructions for making the items authorized to be manufactured or fabricated at the field maintenance level.

Torque Limits. This work package lists standard torque values for bolts and screws used in maintaining the equipment.

Chapter 7 - Parts Information

This chapter contains Repair Parts and Special Tools Lists (RPSTL) needed to perform operator and field maintenance of the equipment. The chapter is divided as follows:

Repair Parts List. These work packages contain illustrations and lists. The illustrations aid in identifying the parts. The lists include information that tells which maintenance levels are authorized to use the part, the part number that identifies the part, the name of the part, and the quantity used.

Special Tools List. This work package informs the user that no special tools are needed.

National Stock Number (NSN) Index. This work package lists all of the parts contained in Repair Parts Lists. The NSN index is in National Item Identification Number (NIIN) sequence.

Part Number Index. These work packages lists all of the parts contained in Repair Parts Lists. The part number index is in alphanumeric part number sequence.

Chapter 8 - Supporting Information

The chapter is divided as follows:

References. This work package lists all publications referenced in the various chapters of the technical manual. The listing includes the title and document number of each publication.

Maintenance Allocation Chart (MAC) Introduction. This work package explains what is covered in the maintenance allocation chart.

Maintenance Allocation Chart (MAC). This work package has three sections, as follows:

Maintenance Allocation Chart (MAC). Table 1 contains a tabular listing that assigns maintenance functions to specific maintenance levels. It lists the work time needed to perform each maintenance function at the assigned level. It also contains a column that has entries keyed to the tools and equipment listed in Table 2.

Another column has entries keyed to the remarks in Table 3.

Tool and Test Equipment Requirements. Table 2 contains complete identification information for the items referenced in the tools and equipment column of Table 1.

Remarks. Table 3 provides additional information for each entry in the remarks column of Table 2.

Components of End Item (COEI) and Basic Issue Items (BII) Lists. This work package lists the items usually packaged separately but needed for installation and operation of the equipment. The work package has three sections, as follows:

Introduction. This section explains the entries in Tables 1 and 2.

Components of End Item. The equipment is normally shipped fully assembled, so this section is not applicable.

Basic Issue Items. This section contains a list of the accessories needed for installation and operation of the equipment.

Additional Authorization List (AAL). This work package lists additional items you are authorized for support of the equipment. This work package contains two sections, as follows:

Introduction. This section explains the entries in Tables 1.

Additional Authorized Items List. This table lists the Additional Authorized Items.

Expendable and Durable Items List. This work package lists expendable/durable supplies and materials needed to operate and maintain your equipment. The work package contains two sections, as follows:

Introduction. This section explains the entries in Tables 1.

Expendable and Durable Items List. The list indicates the maintenance level that needs each item and identifies the items by National Stock Number (NSN), description, and unit of measure.

Rear Matter

Alphabetical Index. An alphabetical index at the back of this technical manual provides a listing of subjects covered, cross-referenced to the applicable work packages.

HOW TO FIX AN EQUIPMENT MALFUNCTION

Determining the Cause

Finding the cause of a malfunction, troubleshooting, is the first step in fixing your equipment and returning it to operation. Follow these simple steps to determine the root of the problem:

1. Turn to the Table of Contents in this manual.
2. Locate "Troubleshooting" under the chapter that covers your level of maintenance. Turn to the page indicated.
3. For operator troubleshooting, follow the instructions in the references listed in Chapter 3.
4. For troubleshooting at the field level, find the malfunction listing in Chapter 5. Follow the instructions provided as indicated by the symptom index.

Preparing for a Task

Be sure that you understand the entire maintenance procedure before beginning any maintenance task. Make sure that all parts, materials, and tools are handy. Read all steps before beginning.

Prepare to do the task as follows:

1. Carefully read the entire task before starting. It tells you what you will need and what you have to know to start the task. **DO NOT START THE TASK UNTIL:**
 - a. You know what is needed
 - b. You have everything you need
 - c. You understand what to do
2. If parts are listed, they can be drawn from technical supply. Before you start the task, check to make sure you can get the needed parts. National stock numbers (NSNs) and part numbers for power unit/power plant parts are listed in the Repair Parts and Special Tools List (RPSTL).
3. If expendable/durable supplies or materials are needed, get them before starting the task. Refer to WP 0115 for the correct nomenclature and NSN.

How to Do the Task

Before starting, read the entire task. Be sure that you understand the entire procedure before you begin the task. As you read, remember the following:

1. **PAY ATTENTION TO WARNINGS, CAUTIONS, AND NOTES.**
2. Use the List of Abbreviations/Acronyms if you do not understand the special abbreviations or unusual terms used in this manual.
3. The following are standard maintenance practices. Instructions about these practices are usually not included in task steps. When standard maintenance practices do not apply, the task steps will tell you.
 - a. Tag electrical wiring before disconnecting it.
 - b. Discard used preformed packing, retainers, gaskets, cotter pins, lockwashers, and similar items. Install new parts to replace the discarded items.
 - c. Coat packing before installation, in accordance with the task instructions.
 - d. Disassembly procedures describe the disassembly needed for total authorized repair. You may not need to disassemble an item as far as described in the task. Follow the disassembly steps only as far as needed to repair/replace worn or damaged parts.
 - e. Clean the assembly, subassembly, or part before inspecting it.
 - f. Before installing components having mating surfaces, inspect the mating surfaces to make sure they are in serviceable condition.
 - g. Hold the bolt (or screw) head with a wrench (or screwdriver) while tightening or loosening a nut on the bolt (or screw).
 - h. Torque to the special torque cited when the task instructions include the words "torque to." Use standard torques at all other times.
 - i. When a cotter pin is required, align the cotter pin holes within the allowable torque range.
 - j. Inspect for foreign objects after performing maintenance.

CHAPTER 1

**OPERATOR AND FIELD GENERAL INFORMATION,
EQUIPMENT DESCRIPTION AND THEORY OF
OPERATION**

FOR

**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER
UNITS AND POWER PLANTS**

CHAPTER 1

GENERAL INFORMATION, EQUIPMENT DESCRIPTION AND THEORY OF OPERATION

WORK PACKAGE INDEX

<u>Title</u>	<u>WP Sequence No.</u>
General Information.....	0001
Equipment Description and Data.....	0002
Theory of Operation.....	0003

OPERATOR AND FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT**

GENERAL INFORMATION

SCOPE

This manual is for your use in operating and maintaining the Power Unit PU-805, Power Unit PU-805B, Power Unit PU-806, Power Unit PU-806B, Power Plant AN/MJQ-41 and Power Plant AN/MJQ-41B (Figure 1 and Figure 2). The manual covers operating instructions and operator and field maintenance requirements for the equipment. It also contains a Repair Parts and Special Tools List (RPSTL) for the power units and power plants. Power Units PU-805 and PU-805B are mobile units used to supply 60 kW of 50/60 Hz power. PU-806 and PU-806B are mobile units used to supply 60 kW of 400 Hz power. Power Plant AN/MJQ-41 consists of two PU-805 Power Units, a Switch Box, and a power cable. Power Plant AN/MJQ-41B consists of two PU-805B Power Units, a Switch Box, and a power cable.

NOTE

The B model of the power units have a MEP-806B or MEP-816B generator set with a Digital Control System (DCS) and the B model of the power plant has a MEP-806B generator set with a DCS (refer to Figure 1). In this manual only the PU-805, PU-806 or AN/MJQ-41 (analog) will be depicted in the majority of illustrations.

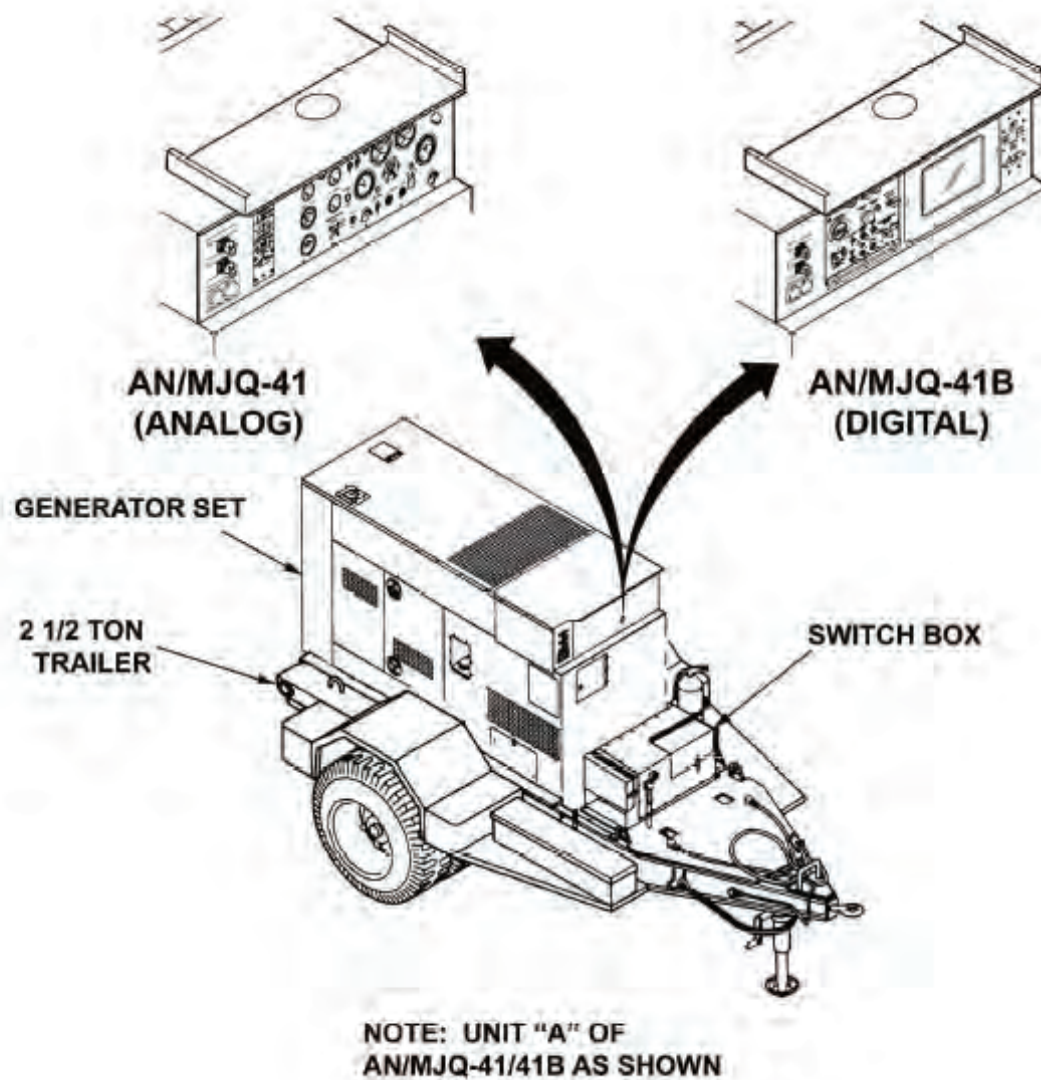


Figure 1. Curbside Front Three Quarter View.

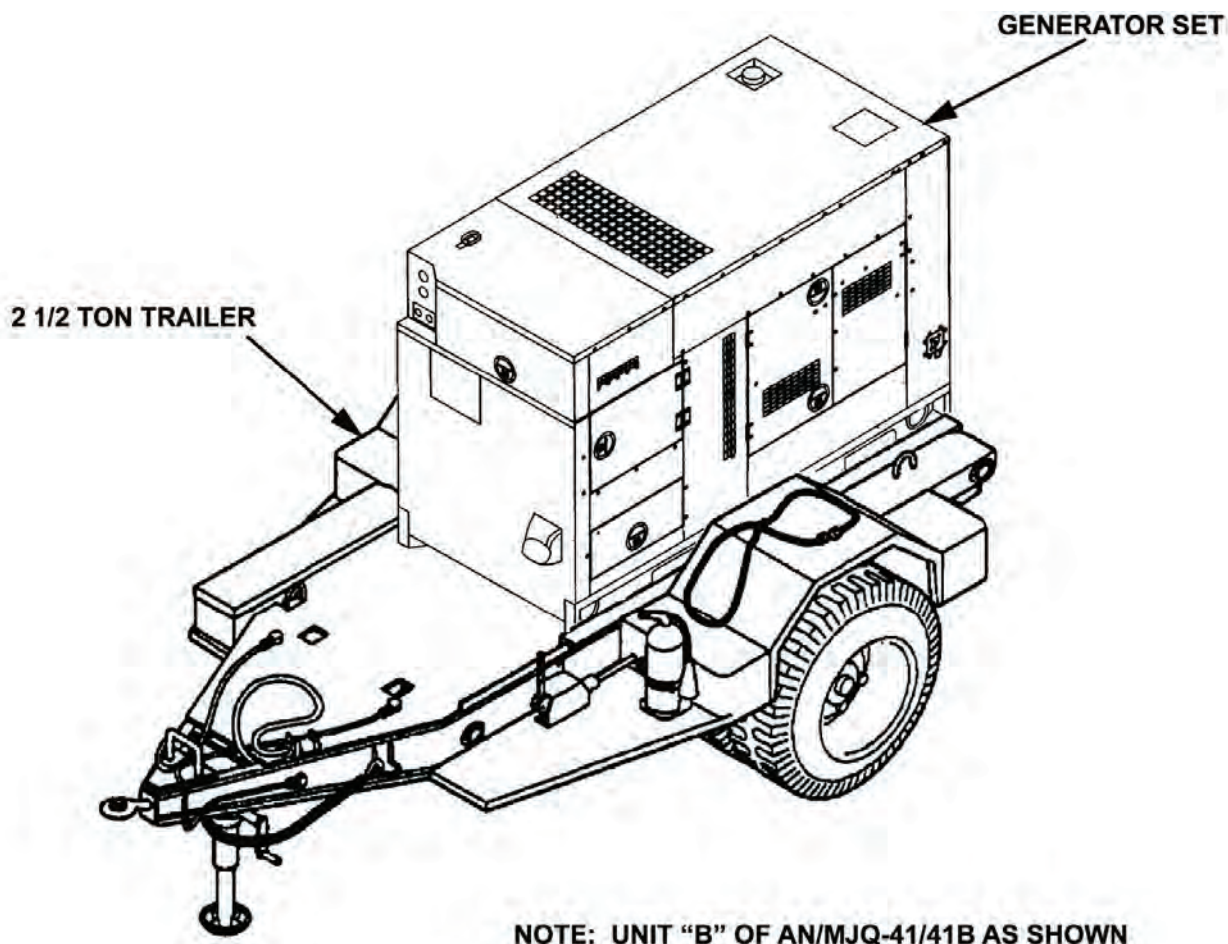


Figure 2. Roadside Front Three Quarter View.

MAINTENANCE FORMS, RECORDS, AND REPORTS

(Army) Department of the Army forms and procedures used for equipment maintenance will be those prescribed by (as applicable) DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual; DA PAM 738-751, Functional Users Manual for the Army Maintenance Management Systems - Aviation (TAMMS-A); or AR 700-138, Army Logistics Readiness and Sustainability.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATION (EIR)

(Army) If your Power Unit or Power Plant needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. If you have Internet access, the easiest and fastest way to report problems or suggestions is to go to <https://aeps.ria.army.mil/aepspublic.cfm> (scroll down and choose the "Submit Quality Deficiency Report" bar). The Internet form lets you choose to submit an Equipment Improvement Recommendation (EIR), a Product Quality Deficiency Report (PQDR) or a Warranty Claim Action (WCA). You may also submit your information using an SF 368 (Product Quality Deficiency Report). You can send your SF 368 via e-mail, regular mail, or facsimile using the addresses/facsimile numbers specified in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual. We will send you a reply.

CORROSION PREVENTION AND CONTROL (CPC)

Corrosion Prevention and Control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problems with this item be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items.

Corrosion specifically occurs with metals. It is an electrochemical process that causes the degradation of metals. It is commonly caused by exposure to moisture, acids, bases, or salts. An example is the rusting of iron. Corrosion damage in metals can be seen, depending on the metal, as tarnishing, pitting, fogging, surface residue, and/or cracking. Plastics, composites, and rubbers can also degrade. Degradation is caused by thermal (heat), oxidation (oxygen), solvation (solvents), or photolytic (light, typically UV) processes. The most common exposures are excessive heat or light. Damage from these processes will appear as cracking, softening, swelling, and/or breaking.

SF Form 368, Product Quality Deficiency Report should be submitted to the address specified in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual.

DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

Destruction of Army materiel to prevent enemy use shall be in accordance with TM 750-244-3.

PREPARATION FOR STORAGE OR SHIPMENT

Administrative storage of equipment issued to and used by Army activities will have Preventive Maintenance Checks and Services (PMCS) performed before storing. When removing the equipment from administrative storage, the PMCS checks should be performed to assure operational readiness.

Refer to WP 0049 for detailed instructions.

The common name of the power units and power plants is listed with its official nomenclature below:

NOMENCLATURE CROSS-REFERENCE LIST

<u>Common Name</u>	<u>Official Nomenclature</u>
AN/MJQ-41	Power Plant, Diesel Engine Driven, 2 ½ Ton Trailer Mounted, 60 kW, 50/60 Hz
AN/MJQ-41B	Power Plant, Diesel Engine Driven, 2 ½ Ton Trailer Mounted, 60 kW, 50/60 Hz
M200A1	Chassis, Trailer, 2 ½ Ton, 2/4 Wheel (altered)
MEP-806A	Generator Set (analog), 60 kW, 50/60 Hz
MEP-806B	Generator Set (DCS), 60 kW, 50/60 Hz
MEP-816A	Generator Set (analog), 60 kW, 400 Hz
MEP-816B	Generator Set (DCS), 60 kW, 400 Hz
PU-805	Power Unit, Diesel Engine Driven, 2 ½ Ton Trailer Mounted, 60 kW, 50/60 Hz
PU-805B	Power Unit, Diesel Engine Driven, 2 ½ Ton Trailer Mounted, 60 kW, 50/60 Hz
PU-806	Power Unit, Diesel Engine Driven, 2 ½ Ton Trailer Mounted, 60 kW, 400 Hz
PU-806B	Power Unit, Diesel Engine Driven, 2 ½ Ton Trailer Mounted, 60 kW, 400 Hz

LIST OF ABBREVIATIONS/ACRONYMS

<u>Abbreviation/Acronym</u>	<u>Name</u>
° C	Degrees Celsius
° F	Degrees Fahrenheit

LIST OF ABBREVIATIONS/ACRONYMS - Continued

<u>Abbreviation/Acronym</u>	<u>Name</u>
AAL	Additional Authorization List
BII	Basic Issue Item
BOI	Basis Of Issue
CAGE	Commercial And Government Entity
CAGEC	Commercial And Government Entity Code
CIM	Computer Interface Module
COEI	Components Of End Item
CONEX	Container Express
CPC	Corrosion Prevention And Control
CTA	Common Table Of Allowance
CUCV	Commercial Utility Cargo Vehicle
DCS	Digital Control System
DOD	Department Of Defense
EIR	Equipment Improvement Recommendation
FGC	Functional Group Code
HCI	Hardness Critical Item
HMMWV	High Mobility Multipurpose-Wheeled Vehicle
Hz	Hertz
JTA	Joint Table Of Allowances
kg	Kilogram
kPa	Kilopascals
KPH	Kilometers Per Hour
kW	Kilowatt
lbf•ft	Foot Pound•Force
LTT	Light Tactical Trailer
m	Meter (Metric Measure)
MAC	Maintenance Allocation Chart
MTOE	Modification Table Of Organization And Equipment
NHA	Next Higher Assembly
NIIN	National Item Identification Number
NSN	National Stock Number
N•m	Newton•Meter
P/N	Part Number
PMCS	Preventive Maintenance Checks And Services
PSI	Pound Per Square Inch
RPSTL	Repair Parts And Special Tools List
SMR	Source, Maintenance, And Recoverability
SRA	Specialized Repair Activity

LIST OF ABBREVIATIONS/ACRONYMS - Continued

<u>Abbreviation/Acronym</u>	<u>Name</u>
TAMMS	The Army Maintenance Management System
TDA	Table Of Distribution And Allowances
TMDE	Test, Measurement, And Diagnostic Equipment
TOE	Table of Organization and Equipment
U/I	Unit Of Issue
UOC	Usable On Code
UOM	Unit Of Measure
UUT	Unit Under Test

SUPPORTING INFORMATION FOR REPAIR PARTS, SPECIAL TOOLS, TMDE AND SUPPORT EQUIPMENT**Common Tools and Equipment**

For authorized common tools and equipment, refer to the Modified Table of Organization and Equipment (MTOE), CTA 50-970, Expendable/Durable Items (Except: Medical, Class V, Repair Parts, and Heraldic Items), CTA 50-909, Field and Garrison Furnishings and Equipment or CTA 8-100, Army Medical Department Expendable/Durable Items, as applicable to your unit.

Special Tools, TMDE, and Support Equipment

No special tools or support equipment are required for maintenance of the power units or power plants. Refer to TM 9-6115-645-24P and TM 9-6115-672-24P for generator set special tools and/or support equipment. Refer to TM 9-2815-256-24P and TM 9-6115-260-24P for engine special tools and/or support equipment.

Repair Parts

Refer to TM 9-6115-645-24P and TM 9-6115-672-24P for generator set parts and TM 9-2815-256-24P and TM 9-6115-260-24P for engine parts. Refer to TM 9-2330-205-14&P for trailer repair parts. Power plant and power unit repair parts not covered in the generator, engine, or trailer RPSTL are listed and illustrated in Chapter 7.

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

EQUIPMENT DESCRIPTION AND DATA

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

NOTE

A modification to the M200A1 trailer in 2005 changed from the 4-tire configuration to a 2-tire configuration. The illustrations in this manual depict the 4-tire configuration.

NOTE

When referring to TM 9-2330-205-14&P, make sure that the proper trailer chassis configuration is known.

Characteristics

The 60 kW Power Units and Power Plants consist of one DOD Model MEP 806A, 806B, 816A or 816B Tactical Quiet Generator Set mounted on a modified M200A1 2 ½ ton trailer. The modification to the basic M200A1 trailer includes generator mounting rails, special fenders, an accessory box, and a fire extinguisher bracket. For detailed information about the M200A1 trailer refer to TM 9-2330-205-14&P. Each generator set is a liquid cooled, diesel engine driven unit operating at 50/60 or 400 Hz with a load capacity of 60 kW at .8 power factor.

Power Unit PU-805.The PU-805 has a Tactical Quiet Generator Set (analog), DOD Model MEP-806A, liquid cooled, diesel engine driven unit, with a load capacity of 60 kW, mounted on a modified M200A1, 2 ½ ton trailer. Refer to TM 9-6115-645-10 for detailed information about the generator set.

Power Unit PU-805B.The PU-805B has a Tactical Quiet Generator Set (DCS), DOD Model MEP-806B, liquid cooled, diesel engine driven unit, with a load capacity of 60 kW, mounted on a modified M200A1, 2 ½ ton trailer. Refer to TM 9-6115-672-14 for detailed information about the generator set.

Power Unit PU-806.The PU-806 has a Tactical Quiet Generator Set (analog), DOD Model MEP-816A, liquid cooled, diesel engine driven unit, with a load capacity of 60 kW, mounted on a modified M200A1, 2 ½ ton trailer. Refer to TM 9-6115-645-10 for detailed information about the generator set.

Power Unit PU-806B.The PU-806B has a Tactical Quiet Generator Set (DCS), DOD Model MEP-816B, liquid cooled, diesel engine driven unit, with a load capacity of 60 kW, mounted on a modified M200A1, 2 ½ ton trailer. Refer to TM 9-6115-672-14 for detailed information about the generator set.

Power Plant AN/MJQ-41.The AN/MJQ-41 Power Plant consists of two PU-805 Power Units, a power cable and a switch box. The PU-805 Power Units have been identified as either Unit A or Unit B. The Switch Box is mounted on Unit A and the power cable is stored on Unit B. The electrical output and towing information are the same as listed for the PU-805 in WP 0002 under the heading "Power Units PU-805 and PU-805B."

Power Plant AN/MJQ-41B.The AN/MJQ-41B Power Plant consists of two PU-805B Power Units, a power cable and a switch box. The PU-805B Power Units have been identified as either Unit A or Unit B. The Switch Box is mounted on Unit A and the power cable is stored on Unit B. The electrical output and towing information are the same as listed for the PU-805B in WP 0002 under the heading "Power Units PU-805 and PU-805B."

NOTE

Refer to M200A1 trailer TM 9-2330-205-14&P for information concerning unique driving conditions.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

Figure 1 shows Unit A of the AN/MJQ-41. Unit A of the AN/MJQ-41B has the same components as the AN/MJQ-41 Unit A. Unit B of the AN/MJQ-41 and AN/MJQ-41B has the same components and also contains a power cable, but does not contain a Switch Box. The PU-805, PU-805B, PU-806 and PU-806B also have the

same components as Unit A listed above, but do not contain a Switch Box. The accessory box on Unit A has been removed from the front platform and mounted on the curbside step. Table 1 lists the major components of the power units or power plants.

Table 1. Description of Major Components, Power Unit or Power Plant.

Item No.	Item Name	Description
1	Switch Box (AN/MJQ-41 and AN/MJQ-41B (Unit A only))	Allows connection of two generator sets provided with the AN/MJQ-41 and AN/MJQ-41B.
2	Generator	Produces 120/208 or 240/416 three phase AC power at 60 kW. DOD Model MEP-806A TQG set for the AN/MJQ-41 and PU-805. DOD Model MEP-806B TQG set for the AN/MJQ-41B and PU-805B. DOD Model MEP-816A TQG set for the PU-806. DOD Model MEP-816B TQG set for the PU-806B.
NOTE When referring to TM 9-2330-205-14&P, make sure that the proper trailer chassis configuration is known.		
3	Trailer (Power cable is mounted on AN/MJQ-41 and AN/MJQ-41B (Unit B only))	All Power Units and Power Plants - modified trailer M200A1 (TM 9-2330-205-14&P).

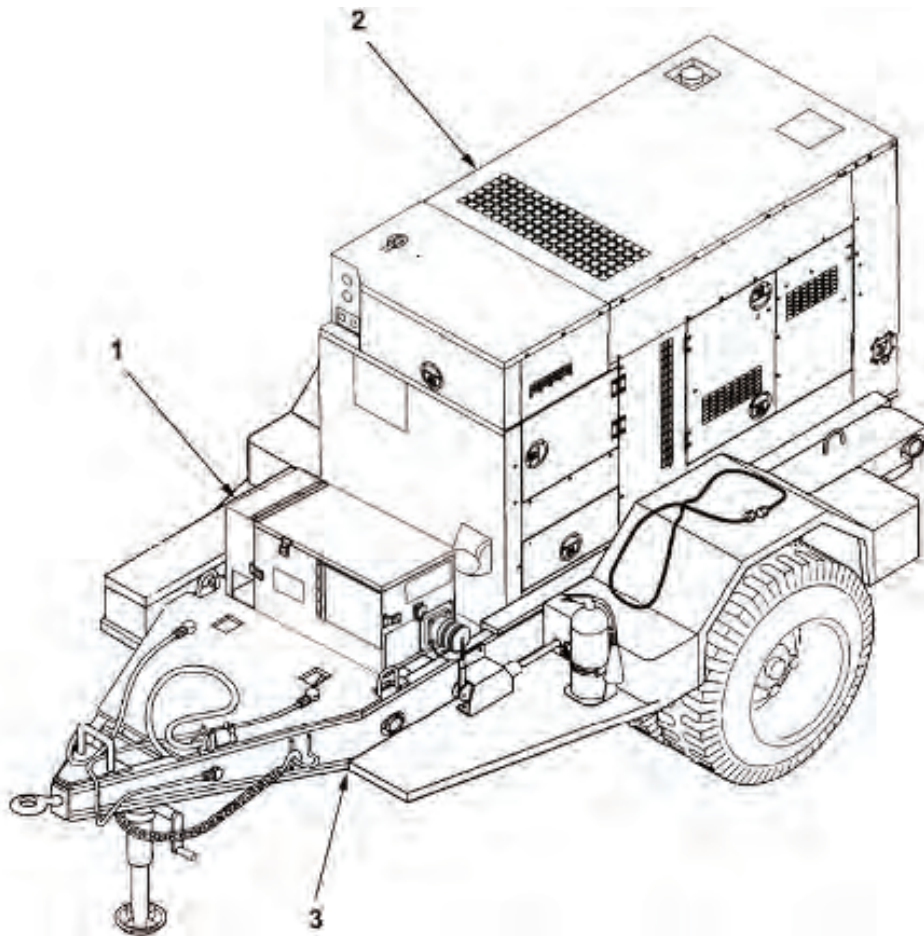


Figure 1. Location of Major Components, Power Unit or Power Plant.

DIFFERENCES BETWEEN MODELS

Differences between the PU-805, PU-805B, PU-806, PU-806B, AN/MJQ-41, and AN/MJQ-41B are identified in the following table (Table 2). A number (quantity) under the applicable power plant or power unit column heading indicates that the item is a component of that power plant or power unit.

CAUTION

An AN/MJQ-41 generator set should not be paralleled with an AN/MJQ-41B generator set as extreme damage could occur to either or both of the generator sets (an analog TQG set should not be paralleled with a DCS TQG set).

Table 2. Differences Between Models.

Component	AN/MJQ-41 UNIT A	AN/MJQ-41 UNIT B	AN/MJQ-41B UNIT A	AN/MJQ-41B UNIT B	PU-805	PU-805B	PU-806	PU-806B
MEP-806A TQG Set, 50/60 Hz	1	1			1			

Table 2. Differences Between Models. - Continued

Component	AN/MJQ-41 UNIT A	AN/MJQ-41 UNIT B	AN/MJQ-41B UNIT A	AN/MJQ-41B UNIT B	PU-805	PU-805B	PU-806	PU-806B
MEP-806B TQG Set, 50/60 Hz			1	1		1		
MEP-816A TQG Set, 400 Hz							1	
MEP-816B TQG Set, 400 Hz								1
Switch Box	1		1					
Power Cable		1		1				
Trailer, 2 ½ Ton	1	1	1	1	1	1	1	1

EQUIPMENT DATA**Generator Set**

Refer to TM 9-6115-645-10 (MEP 806A/MEP-816A) or TM 9-6115-672-14 (MEP-806B/MEP-816B) for data on the generator set.

Trailer Chassis

Refer to TM 9-2330-205-14&P (2 ½ Ton Trailer) for data on the trailer chassis.

Tabulated Data

Tabulated data for the power units and power plants are provided in the following table (Table 3).

Table 3. Tabulated Data for Power Units and Power Plants.

Component	AN/MJQ-41 UNIT A	AN/MJQ-41 UNIT B	AN/MJQ-41B UNIT A	AN/MJQ-41B UNIT B	PU-805	PU-805B	PU-806	PU-806B
Overall length, inches (cm)	165.0 (419)	165.0 (419)	165.0 (419)	165.0 (419)	165.0 (419)	165.0 (419)	165.0 (419)	165.0 (419)
Overall width, inches (cm)	94.5 (240)	94.5 (240)	94.5 (240)	94.5 (240)	94.5 (240)	94.5 (240)	94.5 (240)	94.5 (240)
Overall height, inches (cm)	86.3 (219)	86.3 (219)	87.3 (222)	87.3 (222)	86.3 (219)	87.3 (222)	86.3 (219)	87.3 (222)
Operational weight, Lbs (kg)	6880 (3125)	6900 (3134)	6880 (3125)	6900 (3134)	6820 (3098)	6820 (3098)	6860 (3116)	6860 (3116)

Table 3. Tabulated Data for Power Units and Power Plants. - Continued

Component	AN/MJQ-41 UNIT A	AN/MJQ-41 UNIT B	AN/MJQ-41B UNIT A	AN/MJQ-41B UNIT B	PU-805	PU-805B	PU-806	PU-806B
Shipping weight, Lbs (kg)	6440 (2925)	6460 (2934)	6440 (2925)	6460 (2934)	6380 (2897)	6380 (2897)	6420 (2917)	6420 (2917)

Switch Boxes

Three generations of switch boxes have been introduced with the Power Plant configurations. Refer to Table 4 and Figure 2 for switch box differences. Chapter 7 (RPSTL) includes repair parts for all three versions of the switch box, identified as A Model, B Model, and C Model.

Table 4. Switch Box Differences.

Equipment	Differences
Switch Box A (1st generation)	Physical appearance, internal wiring, spare bulbs with control panel, 1 load terminal wrench
Switch Box B (2nd generation)	Physical appearance, internal wiring, no spare bulbs, 2 load terminal wrench, identification plate
Switch Box C (3rd generation)	Physical appearance, internal wiring, no spare bulbs, 2 load terminal wrench, identification plate

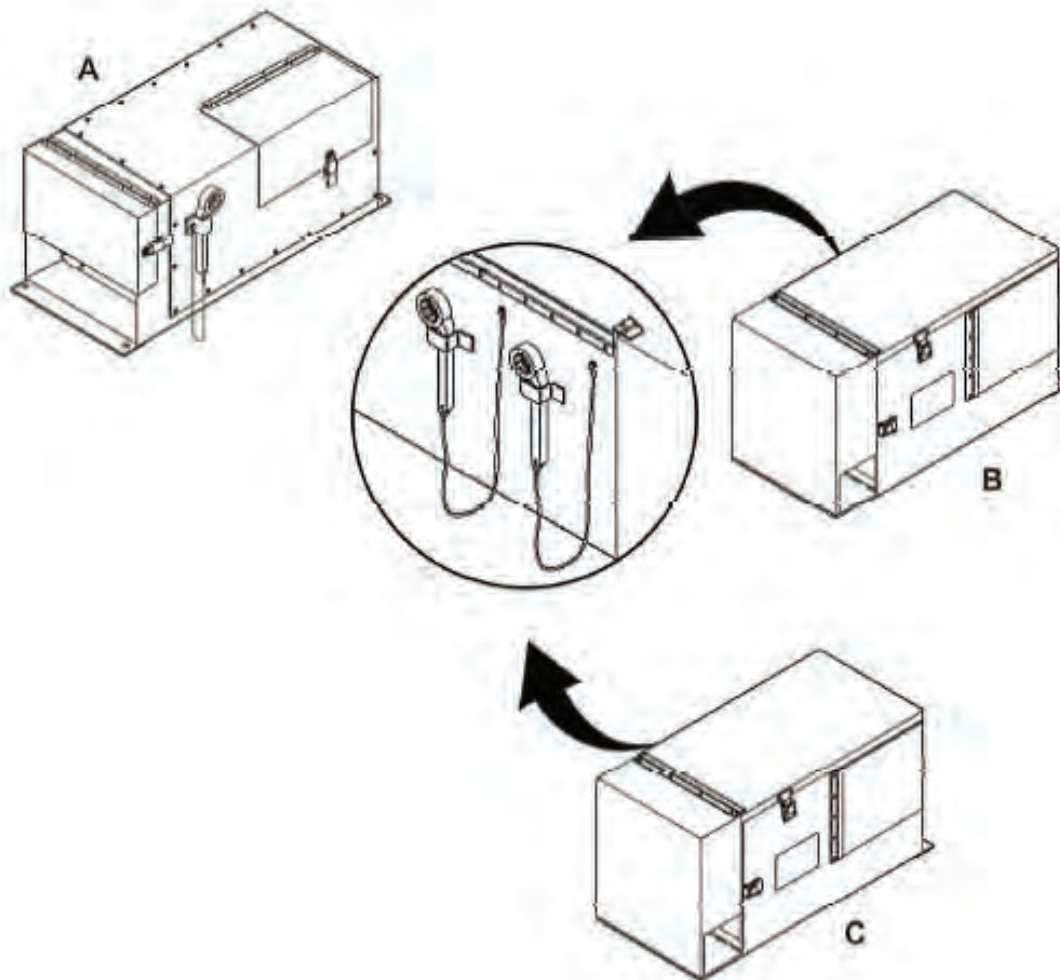


Figure 2. Switch Box Differences.

Power Units PU-805 and PU-805B

Table 5. Towing Vehicle Data for Power units PU-805 and PU-805B.

TOWING VEHICLE	2 ½ Ton 6X6 or 5 Ton 6X6
TIRE PRESSURE (Highway)	35 psi (241.3 kPa)
(Dual Radial)	70 psi (482.6 kPa)

Table 6. Electrical Output Data for Power Units PU-805 and PU-805B.

ELECTRICAL OUTPUT - 50/60Hz:	
120/208 volts, three phase, 50 Hz	172 amps

Table 6. Electrical Output Data for Power Units PU-805 and PU-805B. - Continued

240/416 volts, three phase, 50 Hz	86 amps
120/208 volts, three phase, 60 Hz	208 amps
240/416 volts, three phase, 60 Hz	104 amps

Power Unit PU-806 and PU-806B**Table 7. Towing Vehicle Data for Power Unit PU-806 and PU-806B.**

TOWING VEHICLE	2 ½ Ton 6X6 or 5 Ton 6X6
TIRE PRESSURE (Highway)	35 psi (241.3 kPa)
(Dual Radial)	70 psi (482.6 kPa)

Table 8. Electrical Output Data for Power Unit PU-806 and PU-806B.

ELECTRICAL OUTPUT - 400 Hz:	
1120/208 volts, three phase, 400 Hz	208 amps
240/416 volts, three phase, 400 Hz	104 amps

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****THEORY OF OPERATION**

FUNCTIONAL DESCRIPTION**Power Unit Functional Description**

The Power Units are mobile power sources and each consists of a 60 kW Tactical Quiet Generator (TQG) Set mounted on a modified M200A1 trailer. The generator set consists of a liquid cooled diesel engine, brushless generator, excitation system, speed governing system, fuel system, 24 volt direct current starting system, control system, and malfunction protection system. The generator set has a reconnection board that allows it to be positioned for a power output of 120/208 volt, three phase, or 240/416 volt, three phase AC power. The PU-805 uses a DOD Model MEP-806A (PU-805B uses MEP-806B) TQG Set operating at 50/60 Hz with a load capacity of 60 kW. The PU-806 uses a DOD Model MEP-816A (PU-806B uses MEP-816B) TQG Set operating at 400 Hz. System or equipment load cables are to be connected to the load terminals on the generator set. Refer to TM 9-6115-645-10 for operation and TM 9-6115-645-24 for a detailed functional description of the MEP-806A/MEP-816A TQG Sets. Refer to TM 9-6115-672-14 for operation and a detailed functional description of the MEP-806B/MEP-816B TQG Sets. Refer to TM 9-2330-205-14&P for a functional description of the M200A1 2 ½ ton trailer.

Power Plant Functional Description

AN/MJQ-41 Power Plant. The AN/MJQ-41 Power Plant consists of two PU-805 Power Units, a Switch Box and Power Cable. The two PU-805 Power Units have been modified to provide independent switching between the Power Units. One PU-805 is modified by moving the accessory storage box to the curbside fender, adding a switch box and identifying the modified PU-805 as AN/MJQ-41 UNIT A. The second PU-805 is modified by adding a power cable and identifying the modified PU-805 as AN/MJQ-41 UNIT B. Refer to "Power Unit Functional Description" mentioned above for the functional description of the PU-805. Output electrical power is normally supplied through the switch box assembly located on UNIT A. The cable supplied with UNIT B connects the generator sets through the switch box on UNIT A. The control panel of the switch box controls the output source. The output source is usually either the UNIT A or UNIT B generator set as determined by the control panel switches. When both switches are placed in the ON position and both generators are ON, the generators operate in parallel. Parallel operation of the generators allows for an uninterrupted load transfer between UNIT A and UNIT B. The output power cable to external equipment may be connected to the switch box from load terminals (N, L1, L2, L3, and GND) of the switch box. Refer to TM 9-6115-645-10 for operation and TM 9-6115-645-24 for a detailed functional description of the generator sets without a switch box. The Switch Box contactors are powered by J16 connector on their respective generators. J16 is protected by the convenience receptacle Ground Fault Circuit Interrupter (GFCI).

AN/MJQ-41B Power Plant. The AN/MJQ-41B Power Plant consists of two PU-805B Power Units, a Switch Box and Power Cable. The two PU-805B Power Units have been modified to provide independent switching between the Power Units. One PU-805B is modified by moving the accessory storage box to the curbside fender, adding a switch box and identifying the modified PU-805B as AN/MJQ-41B UNIT A. The second PU-805B is modified by adding a power cable and identifying the modified PU-805B as AN/MJQ-41B UNIT B. Refer to "Power Unit Functional Description" mentioned above for the functional description of the PU-805B. Output electrical power is normally supplied through the switch box assembly located on UNIT A. The cable supplied with UNIT B connects the generator sets through the switch box on UNIT A. The control panel of the switch box controls the output source. The output source is usually either the UNIT A or UNIT B generator set as determined by the control panel switches. When both switches are placed in the ON position and both generators are ON, the generators operate in parallel. Parallel operation of the generators allows for an uninterrupted load transfer between UNIT A and UNIT B. The output power cable to external equipment may be connected to the switch box from load terminals (N, L1, L2, L3, and GND) of the switch box. Refer to TM 9-6115-672-14 for operation and a detailed functional description of the generator sets without a switch box. The Switch Box contactors are powered by J16 connector on their respective generators. J16 is protected by the convenience receptacle Ground Fault Circuit Interrupter (GFCI).

RELATED TECHNICAL MANUALS

Refer to WP 0110 for related technical manuals.

END OF WORK PACKAGE

CHAPTER 2

OPERATOR INSTRUCTIONS

FOR

**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER
UNITS AND POWER PLANTS**

CHAPTER 2
OPERATOR INSTRUCTIONS

WORK PACKAGE INDEX

<u>Title</u>	<u>WP Sequence No.</u>
Description and Use of Operator Controls and Indicators	0004
Operation Under Usual Conditions.....	0005
Operation Under Unusual Conditions.....	0006

OPERATOR MAINTENANCE

**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
DESCRIPTION AND USE OF OPERATOR CONTROLS AND INDICATORS****INTRODUCTION**

Refer to TM 9-6115-645-10 and TM 9-6115-672-14 for the generator set. Refer to TM 9-2330-205-14&P for the 2 ½ ton M200A1 trailer. Refer to Figure 1 and Table 1 for the switch box assembly. Refer to WP 0002, Table 2 for differences between models.

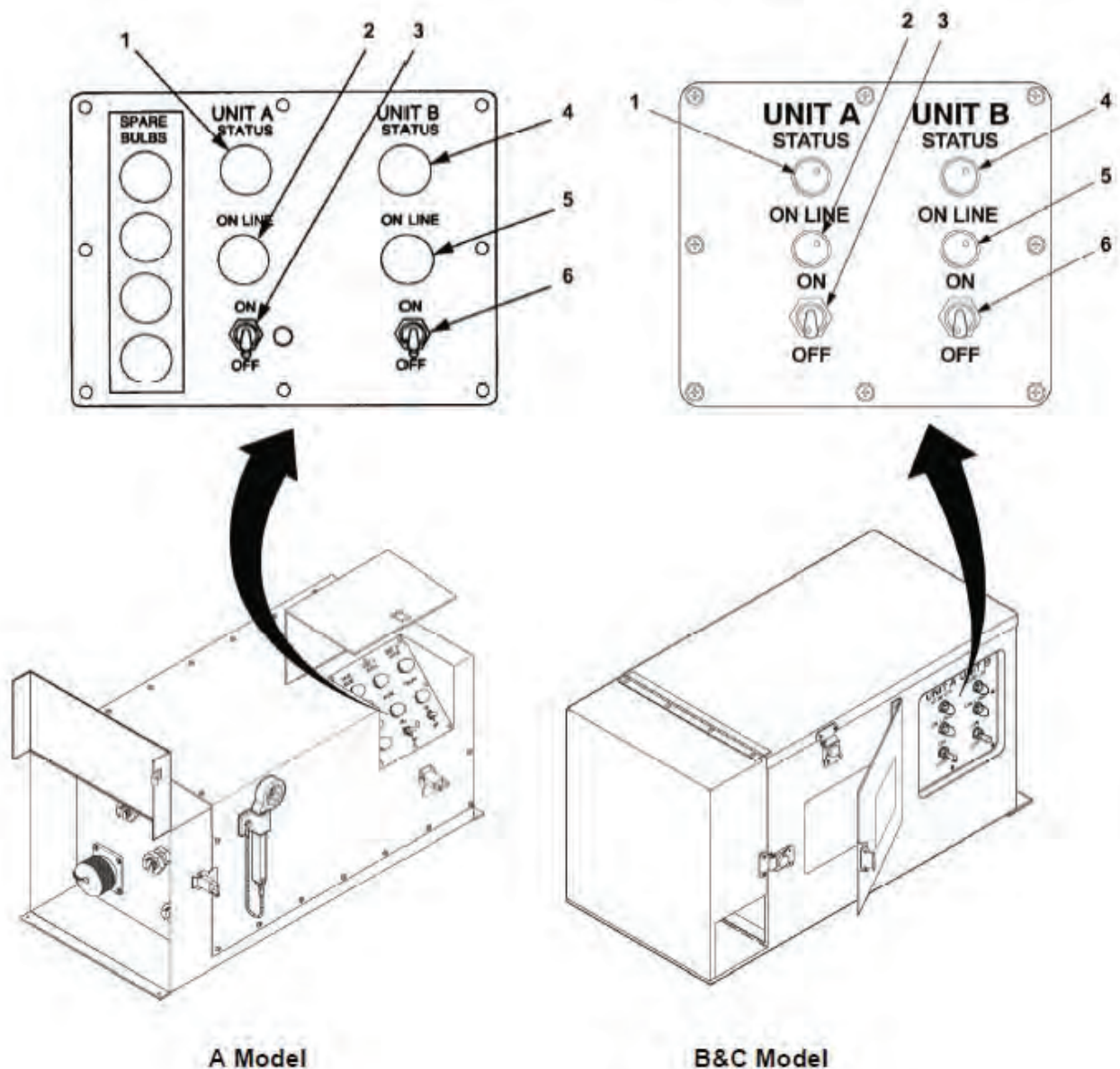
Switch Box Controls and Indicators

Figure 1. Switch Box Controls and Indicators.

Table 1. Switch Box.

Key	Control/Indicator	Function
1.	STATUS light for Unit A generator set.	Lights when Unit A generator set is supplying power to switch box.
2.	ON LINE light for Unit A generator set.	Lights when Unit A generator set is supplying power to the load.
3.	ON/OFF switch for Unit A generator set.	Toggle switch, used to place Unit A generator set on line when generator set is ready or take it off line before shutting it down.
4.	STATUS light for Unit B generator set.	Lights when Unit B generator set is supplying power to switch box.
5.	ON LINE light for Unit B generator set.	Lights when Unit B generator set is supplying power to the load.
6.	ON/OFF switch for Unit B generator set.	Toggle switch, used to place Unit B generator set on line when generator set is ready or take it off line before shutting it down.
	4 Spare Bulbs (shown with A Model switch box).	Located on left side of control panel on A Model switch box.

END OF WORK PACKAGE

OPERATOR MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****OPERATION UNDER USUAL CONDITIONS**

INITIAL SETUP:**Personnel Required**

Operator (1)
91D Assistant (1)

References

FM 4-524
TB 43-0125
TM 9-2330-205-14&P (2 ½ Ton Trailer)
TM 9-6115-645-10
TM 9-6115-672-14
Description and Use of Operator Controls and Indicators (WP 0004)
Operation Under Unusual Conditions (WP 0006)
Operator Troubleshooting Procedures (WP 0008)
PMCS (WP 0010, Table 1)
Additional Authorization List (AAL) (WP 0114)

Equipment Condition

Grounded
Engine control Master Switch in OFF position
Both Sets: Trailer support devices engaged

WARNING

Ground L0 neutral bus bar located on output terminal box jumper will not be removed unless the equipment load being powered specifically requires an isolated ground (floating ground). Failure to comply with this warning can cause injury or death to personnel.

ASSEMBLY AND PREPARATION FOR USE**Assembly of the Equipment**

Assembly must be performed by field level maintenance personnel.

Installation Instructions

Positioning Power Unit/Power Plant. Position the equipment at the worksite as follows:

CAUTION

Before selecting generator sets for parallel operations, check generator sets make and model type. Digital display control sets can only be paralleled with other digital display sets that are the same make and model. Digital display sets cannot be paralleled with non-digital display sets. Failure to observe this caution could result in severe damage to one or both of the generator sets.

NOTE

There will be two units each for the Power Plants AN/MJQ-41 and AN/MJQ-41B. This procedure must be performed on each unit and trailer. The two units for each power plant must be positioned to allow the interconnection of the supplied cables.

1. Select an area as level as possible to install equipment.
2. When configuring the power plant, locate the two power units side by side as shown in Figure 1.

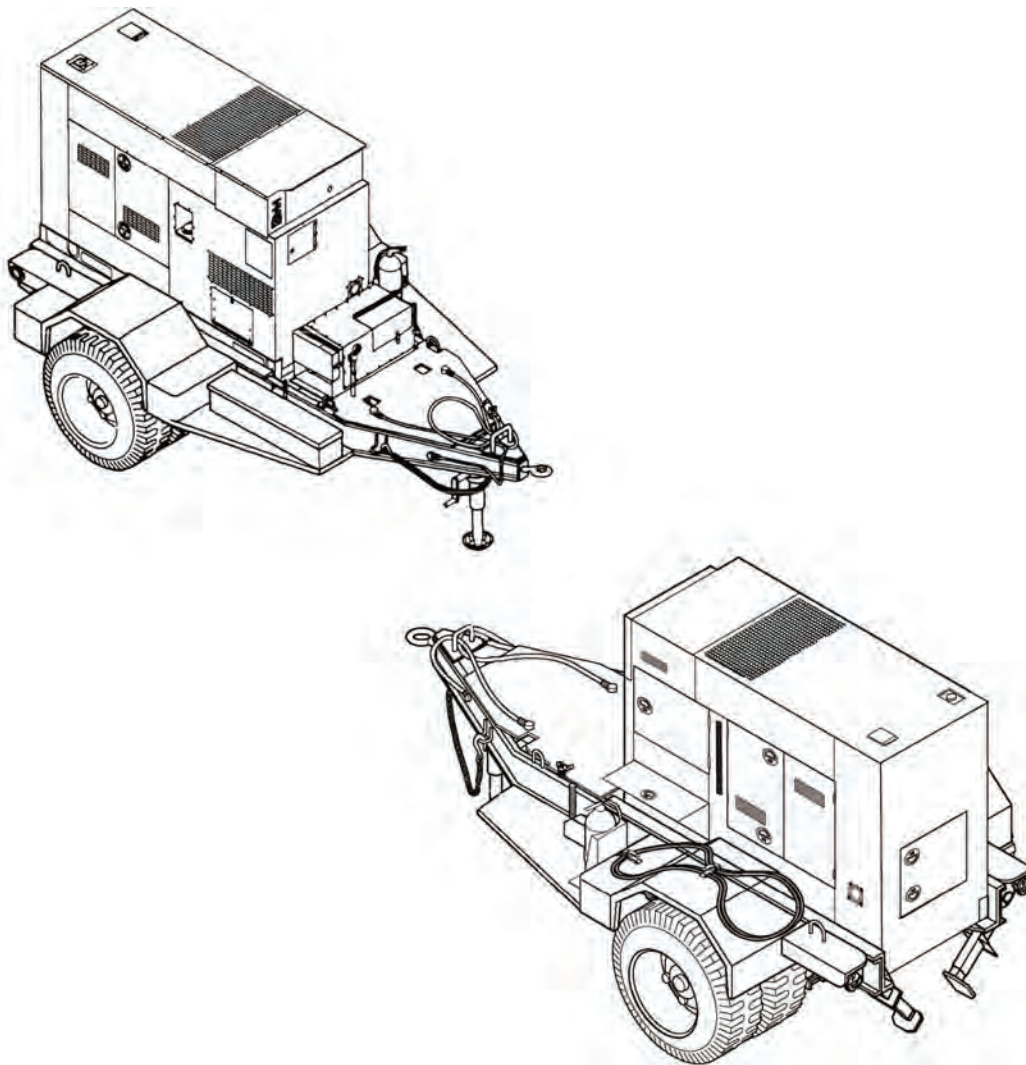


Figure 1. Power Plant Unit A and Unit B Installation.

3. Set the trailer handbrakes and lower trailer support devices. Refer to TM 9-2330-205-14&P for detailed installation of the 2 ½ ton trailer.
4. Remove fire extinguishers from brackets on both units. Locate fire extinguishers on ground away from equipment.

END OF TASK

Grounding of Power Unit/Power Plant (Trailer)

Ground the equipment in accordance with Army Technical Bulletin TB 43-0125 and Field Manual FM 4-524. Typical ground rod installations are shown in Figure 2.

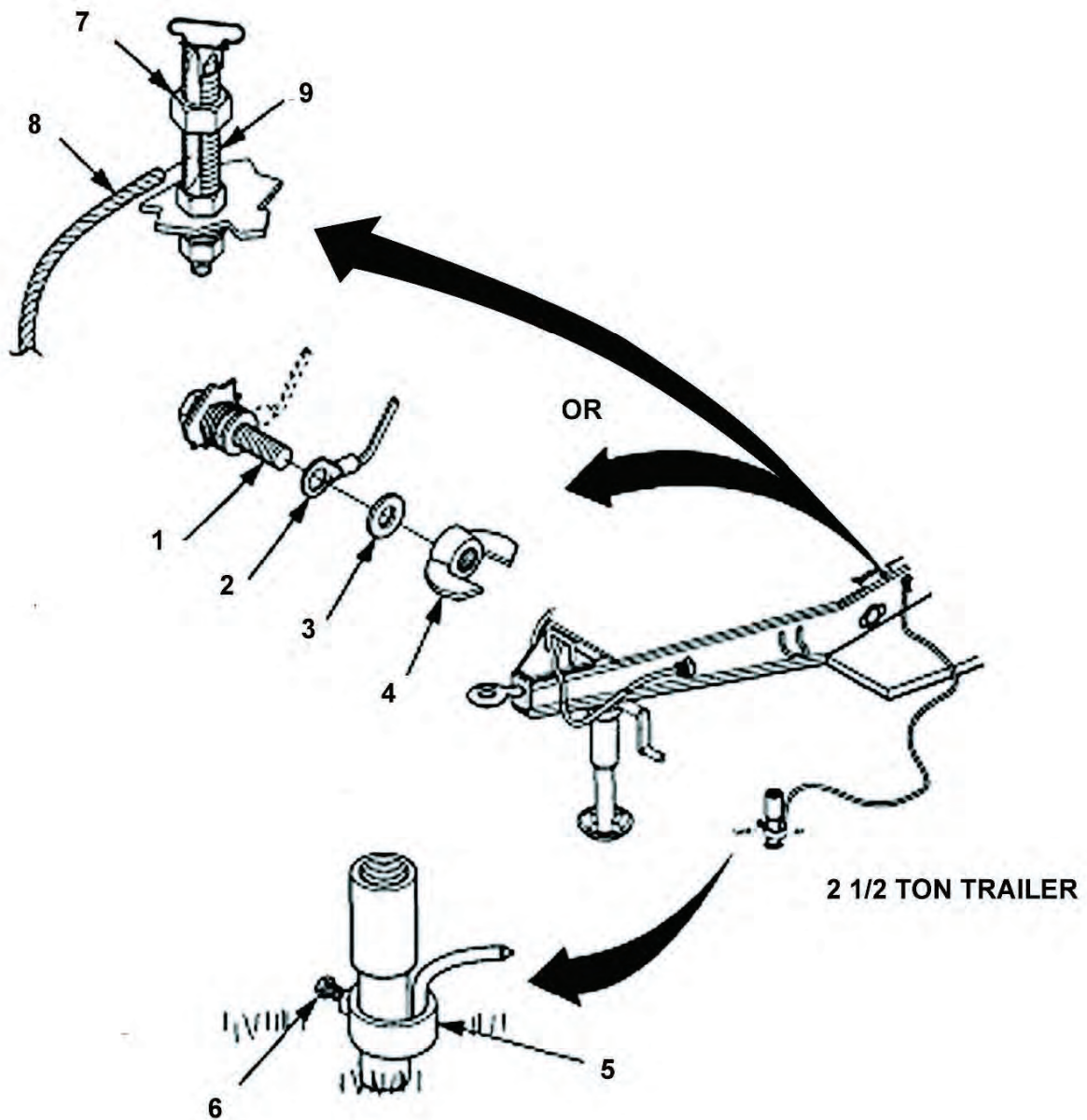


Figure 2. Typical Ground Rod Installations.

If a ground rod is used, install and connect it as follows:

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

NOTE

A power plant consists of two power units. One ground rod must be installed for each power unit.

1. Remove ground rods, grounding straps, and slide hammer (all shown in Figure 3) from the accessory box. Perform assembly Steps a through d.

WARNING

Impact disk must be tightened to end of threads on rod. Also, lockwasher and nut must be tightened firmly against impact disk. Failure to comply with this warning can cause injury to personnel, and damage to the equipment.

NOTE

The terminal lug supplied with the ground rods is too small. Use additional ground straps provided with power units.

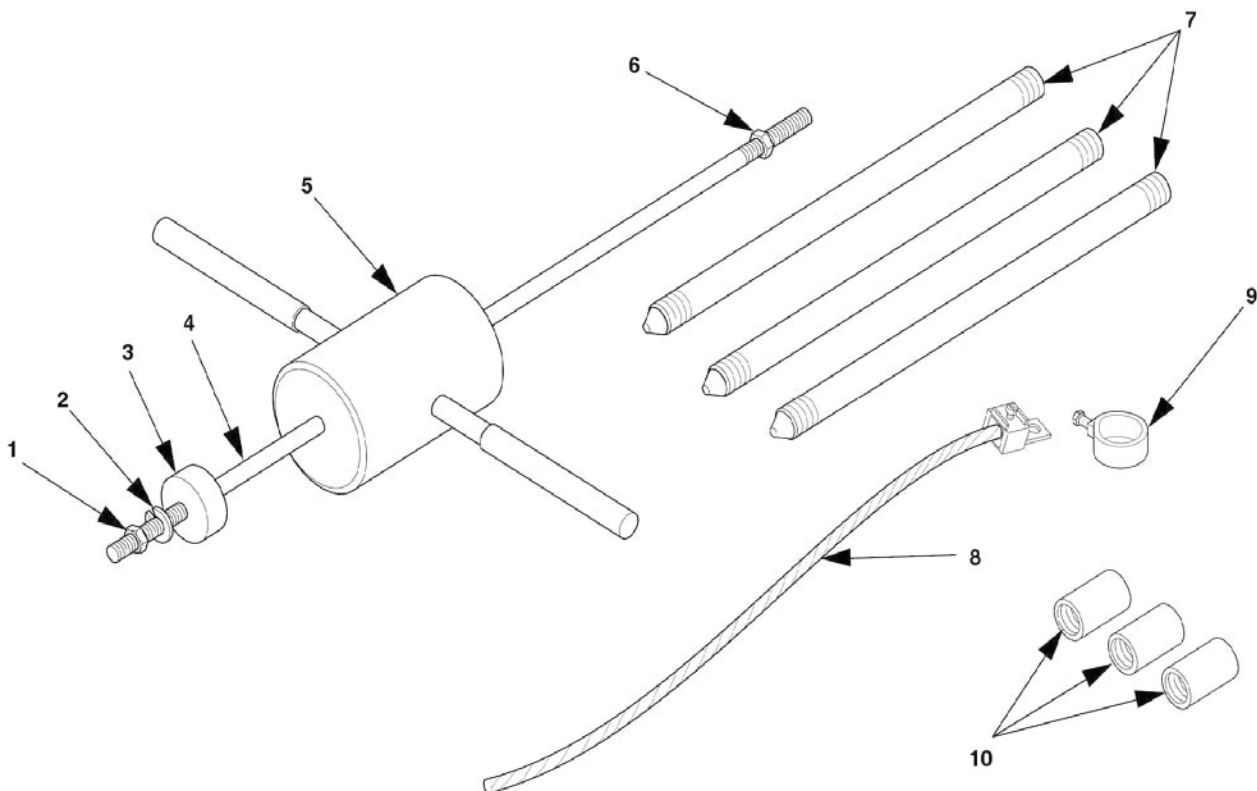


Figure 3. Ground Rod, Grounding Strap, and Slide Hammer.

- a. Install impact disk (Figure 3, Item 3) on rod (Figure 3, Item 4). Tighten impact disk (Figure 3, Item 3) to end of threads on rod (Figure 3, Item 4).
- b. Install lockwasher (Figure 3, Item 2) and nut (Figure 3, Item 1). Tighten nut (Figure 3, Item 1) and lockwasher (Figure 3, Item 2) securely against impact disk (Figure 3, Item 3).
- c. Remove nut (Figure 3, Item 6) before positioning slide hammer.

- d. Position slide hammer (Figure 3, Item 5) on rod (Figure 3, Item 4). Install nut (Figure 3, Item 6) and tighten to end of threads on rod (Figure 3, Item 4).
2. Connect one ground rod coupler (Figure 3, Item 10) to one section of ground rod (Figure 3, Item 7) and screw slide hammer into coupler (Figure 3, Item 10). Make sure that slide hammer rod (Figure 3, Item 4) seats on ground rod (Figure 3, Item 7).
3. Drive ground rod into ground until coupler (Figure 3, Item 10) is just above surface.
4. Remove slide hammer assembly and install another section of ground rod (Figure 3, Item 7).
5. Install another coupler (Figure 3, Item 10) and then the slide hammer assembly. Drive ground rod (Figure 3, Item 7) down until new coupler (Figure 3, Item 10) is just above ground surface.
6. Repeat Steps 4 and 5 until ground rod (Figure 3, Item 7) has been driven eight feet or deeper, providing an effective ground.
7. Connect clamp (Figure 3, Item 9) and ground cable (Figure 3, Item 8) to ground rod (Figure 3, Item 7). Tighten clamp screw.
8. Connect ground cable (Figure 3, Item 8) as follows.

NOTE

There are two possible configurations for the ground terminal on the M200A1 2 ½ ton trailer, a load terminal or a stud with associated hardware.

- a. If a trailer having the load terminal is being used, perform Steps e through g. Otherwise perform Steps b through d and Step g.
- b. Remove and retain wing nut (Figure 2, Item 4) and washers (Figure 2, Item 3) from trailer ground stud (Figure 2, Item 1) and install ground terminal (Figure 2, Item 2) to ground stud (Figure 2, Item 1).
- c. Install washers (Figure 2, Item 3) on ground stud (Figure 2, Item 1).
- d. Install wing nut (Figure 2, Item 4) on ground stud (Figure 2, Item 1) and tighten.
- e. Loosen nut (Figure 2, Item 7) on trailer ground terminal (Figure 2, Item 9).

NOTE

Ground terminal will have two cables in slot after the following step is performed.

- f. Insert ground cable (Figure 2, Item 8) through slot of ground terminal (Figure 2, Item 9) making sure that the ground wire from the generator remains in the slot.
- g. Insert ground cable end into ground cable clamp (Figure 2, Item 5) and tighten screw (Figure 2, Item 6).
9. Disassemble slide hammer (Figure 3, Item 5) as follows:
 - a. Remove nut (Figure 3, Item 6) from end of rod (Figure 3, Item 4) and retain.
 - b. Remove slide hammer (Figure 3, Item 5) from rod (Figure 3, Item 4) and thread nut (Figure 3, Item 6) on end of rod to prevent loss.
 - c. Store slide hammer (Figure 3, Item 5) and rod (Figure 3, Item 4) with assembled parts in accessory box.

END OF TASK

Connecting Load and/or Paralleling Cables

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

A qualified technician must make the power connections and perform all continuity checks. The power source may be a generator or commercial power. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator set, switch box or cables, unless specifically directed otherwise in the troubleshooting procedures. Failure to comply with this warning can cause injury or death to personnel.

CAUTION

Before selecting generator sets for parallel operations, check generator sets make and model type. Digital display control sets can only be paralleled with other digital display sets that are the same make and model. Digital display sets cannot be paralleled with non-digital display sets. Failure to observe this caution could result in severe damage to one or both of the generator sets.

NOTE

Before connecting the load, determine voltage and frequency requirements of the system or device that is being supplied with power. Refer to TM 9-6115-645-10 and TM 9-6115-672-14. Verify that voltage reconnection board is in proper position for voltage requirements and the frequency select switch is in the proper position. If board requires repositioning notify, next higher level of maintenance.

Power Unit. Refer to TM 9-6115-645-10 and TM 9-6115-672-14 for installation of load cables.

Power Plant. Refer to Figure 4 for installation of power cables and load cables. Load may be connected to the switch box by either of two methods. One method is to connect the load cable to the J1 connector (Figure 4, Item 6). The other method is to connect load cables to the load terminals (Figure 4, Items 1, 2, 3, 4, and 5). Connect Unit A to Unit B as follows:

NOTE

A paralleling cable is furnished with each generator set. Cables are located in a storage box inside battery access doors.

1. Connect paralleling cables as follows:
 - a. Connect one end of cable (Figure 4, Item 13) to connector J3 (Figure 4, Item 15) of the switch box located on Unit A.
 - b. Route the other end of cable (Figure 4, Item 13) through power cable sock (Figure 4, Item 10) and connect to connector J16 (Figure 4, Item 8) on Unit B generator set.
 - c. Connect the other paralleling cable (Figure 4, Item 11) between the two paralleling receptacles (Figure 4, Item 7) located on the generator set control panels.

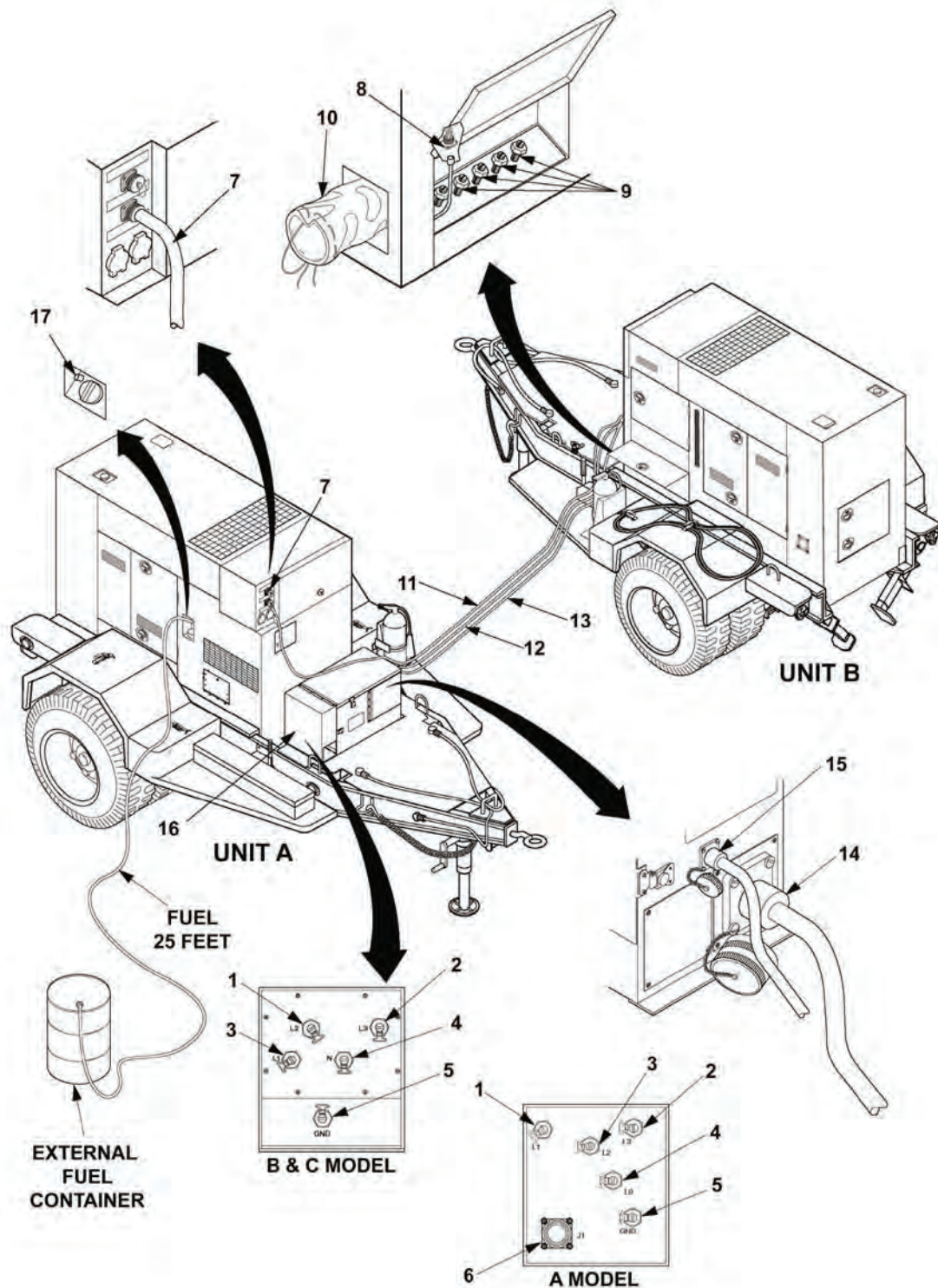


Figure 4. Connecting Power Plant.

2. Remove power cable (Figure 4, Item 12) from fender (Figure 4, Unit B) and connect as follows:
 - a. Route the other end of cable (Figure 4, Item 12) through power cable sock (Figure 4, Item 10) and connect leads (Ground, L3, L2, L1, and N) to appropriate load terminals (Figure 4, Item 9) on Unit B.

Leads will be labeled with load terminal designations. (Two people are required to perform this step.)

- b. Connect the plug end of power cable (Figure 4, Item 12) to connector J2 (Figure 4, Item 14) of the switch box (Figure 4, Item 16) located on Unit A.

END OF TASK

External Fuel Source

Each generator set has provisions for obtaining fuel from an external source, such as a 55 gallon diesel fuel container. This enables operation for long intervals without frequent refilling of the fuel tanks. To use an external fuel source:

WARNING

Do not disconnect trailer from towing vehicle before hand brakes are set and front landing leg and rear support leg lowered. Failure to comply with this warning can cause injury or death to personnel from trailer tipping or rolling, and damage to the equipment.

WARNING

Fuels used in the generator set are flammable. Do not smoke or use open flames when performing maintenance. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

WARNING

Diesel fuel is flammable and toxic to eyes, skin, and respiratory tract. Skin and eye protection are required when working in contact with diesel fuel. Avoid repeated or prolonged contact. Provide adequate ventilation. Operators are to wash exposed skin and change chemical soaked clothing promptly if exposed to fuel. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Fuels used in the generator set are flammable. When filling the fuel tank, maintain metal-to-metal contact between filler nozzle and fuel tank opening to eliminate static electrical discharge. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

WARNING

Hot engine surfaces from the engine and generator circuitry are possible sources of ignition. When hot refueling with DF-1, DF-2, JP5 or JP8, avoid fuel splash and fuel spill. Do not smoke or use open flame when performing refueling. Remember PMCS is still required. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

1. Place external fuel source away, but no more than 25 feet (7.6 meters), from the equipment.
2. Remove fuel container adapter (Figure 5) from accessory box. The fuel container adapter consists of a strainer clamp (Figure 5, Item 1), adapter (Figure 5, Item 2), pipe (Figure 5, Item 3), and extension pipe (Figure 5, Item 4). The extension pipe is not needed if the external fuel source is a 5 gallon fuel can.
3. Make sure that the fuel container adapter components are clean.

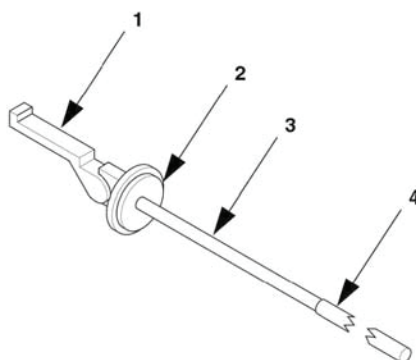


Figure 5. Fuel Container Adapter.

4. Thread fuel pipe (Figure 5, Item 3) into adapter (Figure 5, Item 2). Thread extension pipe (Figure 5, Item 4) into fuel pipe (Figure 5, Item 3).
5. Remove auxiliary fuel hose from behind battery access door.
6. Make sure that fittings on auxiliary fuel hose are clean.
7. Thread one end of auxiliary fuel hose into fuel container adapter fitting and tighten.
8. Connect free end of auxiliary fuel hose to generator set external fuel supply connection and tighten. Connection is located on generator set, near fuel tank filler cap (Figure 4, Item 17).
9. Insert fuel container adapter into external fuel source. Secure fuel container adapter by pressing down on strainer clamp (Figure 5, Item 1).

END OF TASK

INITIAL ADJUSTMENTS, BEFORE USE, AND SELF-TEST

Refer to TM 9-6115-645-10 and TM 9-6115-672-14 for initial adjustments, before use, and self test.

OPERATING PROCEDURES

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Exhaust discharge contains deadly gases including carbon monoxide. DO NOT operate generator set in enclosed areas unless exhaust discharge is properly vented outside. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Hot exhaust gases can ignite flammable materials. Allow room for safe discharge of hot gases and sparks. Failure to comply with this warning can cause injury or death to personnel.

Generator Set Operating Procedures

Refer to TM 9-6115-645-10 and TM 9-6115-672-14 for generator set operating procedures.

Trailer Operating Procedures

Refer to TM 9-2330-205-14&P for trailer operating procedures.

Power Plant Switch Box Operating Procedures Using Analog Generator Sets**CAUTION**

Before selecting generator sets for parallel operations, check generator sets make and model type. Digital display control sets can only be paralleled with other digital display sets that are the same make and model. Digital display sets cannot be paralleled with non-digital display sets. Failure to observe this caution could result in severe damage to one or both of the generator sets.

The power plant can be operated either in a single generator set configuration or parallel operation of the generator sets. The following paragraphs provide operating procedures for a single generator or two generator sets in parallel.

Operating a Single Generator Set from a Power Plant.**WARNING**

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

NOTE

Before operating generator sets, all connections must be made to the switch box assembly.

1. Perform the Preventive Maintenance Checks and Services (PMCS) listed as "Before" in WP 0018, Table 1.
2. Release the clamping catch (Figure 6, Item 8) and open the control panel access cover (Figure 6, Item 7).
3. To start the generator set, rotate the MASTER switch (Figure 6, Item 17) to START position, until oil pressure reaches 25 psi and voltage reaches the appropriate required value.
4. Release MASTER switch (Figure 6, Item 17) to PRIME & RUN position.
5. If external fuel system is being used, place MASTER switch (Figure 6, Item 17) to PRIME & RUN AUX FUEL position.
6. Read just VOLTAGE potentiometer (Figure 6, Item 11) to required voltage.
7. Read just FREQUENCY potentiometer (Figure 6, Item 15) to required frequency.
8. Place AC CIRCUIT INTERRUPTER switch (Figure 6, Item 13) in the CLOSED position.

NOTE

Reset Ground Fault Circuit Interrupter on fault indicator before operating switch box. If Ground Fault Circuit Interrupter has been tripped and not reset, the switch box ON/OFF switch will not work.

9. Ensure convenience receptacle Ground Fault Circuit Interrupted (GFCI) is reset.
10. Check switch box (Figure 6, Item 18) to make sure STATUS light (Figure 6, Item 1 or 4) is lit for the generator set just started.

11. At the switch box (Figure 6, Item 18), set the ON/OFF switch (Figure 6, Item 3 or 6) to the ON position (ON LINE light (Figure 6, Item 2 or 5) should light). Generator is now supplying power to the load.
12. Perform the PMCS listed as "DURING" in WP 0018, Table 1.
13. On the Power Plant switch box (Figure 6, Item 18), place the ON/OFF switch (Figure 6, Item 3 or 6) for the operating generator set in the OFF position.

NOTE

Before shutting generator set off, allow it to operate five minutes with no load applied.

14. To shut down generator set, place AC CIRCUIT INTERRUPTER switch (Figure 6, Item 13) in the OPEN position.
15. On the generator control panel rotate the MASTER switch (Figure 6, Item 17) to the OFF position.

END OF TASK

Operating Analog Generator Sets in Parallel.

These generator sets can be operated in parallel through all models of the switch box (A, B, and C). When paralleling at the switch box, perform the following procedures:

WARNING

Prior to making any connections for parallel operation, ensure that there is no input to the load and that the generator sets are shut down. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

NOTE

"Set 1" is the generator set that is first started and/or running. "Set 2" is the generator that will be paralleled with "Set 1" or the generator to which the load will be transferred to.

1. Ensure that load requirement is equal to or below the combined rated capacity of the two generator sets.
2. Perform the Preventive Maintenance Checks and Services (PMCS) listed as "BEFORE" in WP 0018, Table 1.

CAUTION

Do not close the AC CIRCUIT INTERRUPTER switch (Figure 6 , Item 13) on either of the generator sets or close the load contactor at load until specifically directed to do so. Closing any of these devices at any other time may severely damage one or both of the generator sets.

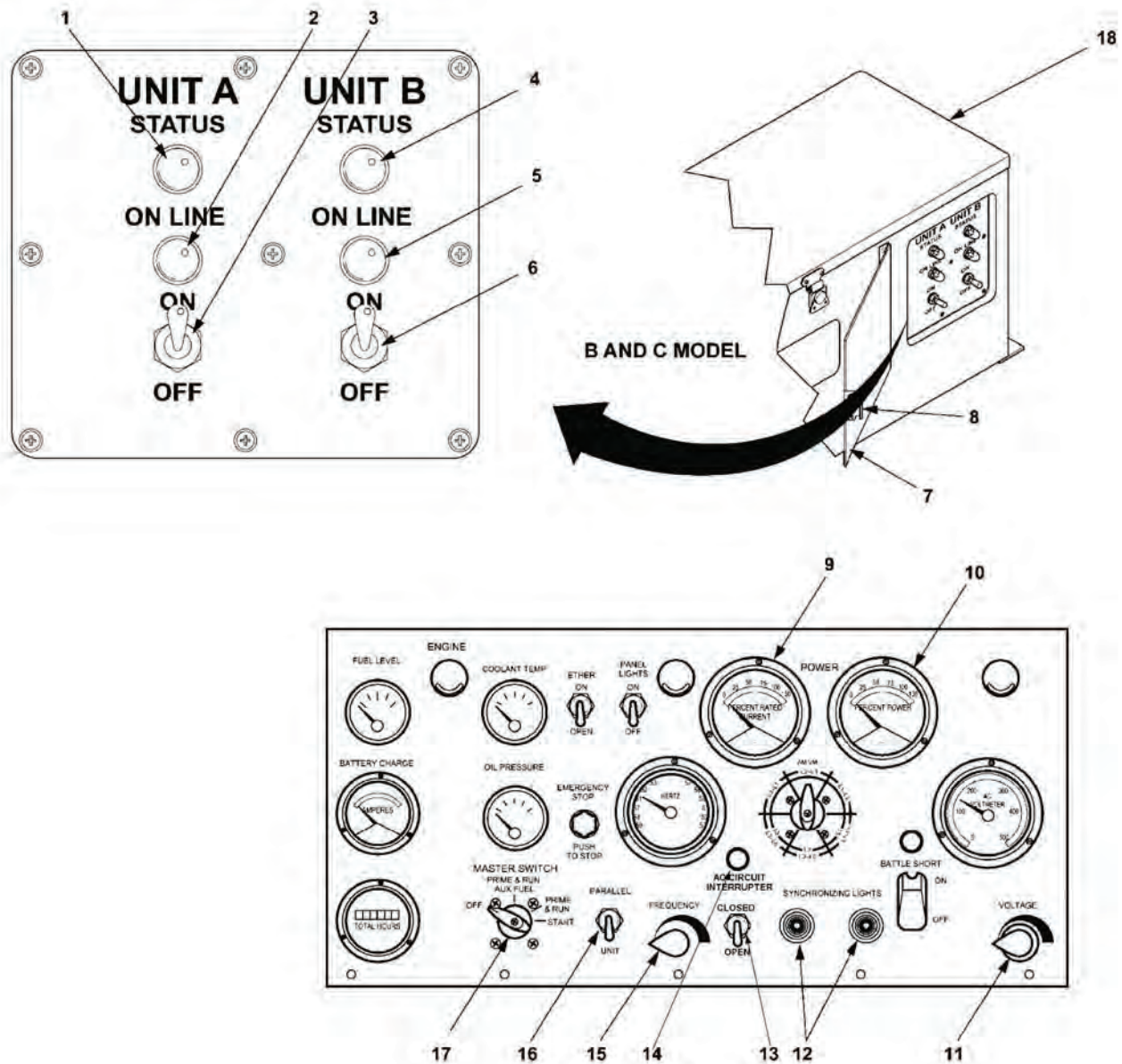


Figure 6. Power Plant Operation Using Analog Generator Sets (Sheet 1 of 2).

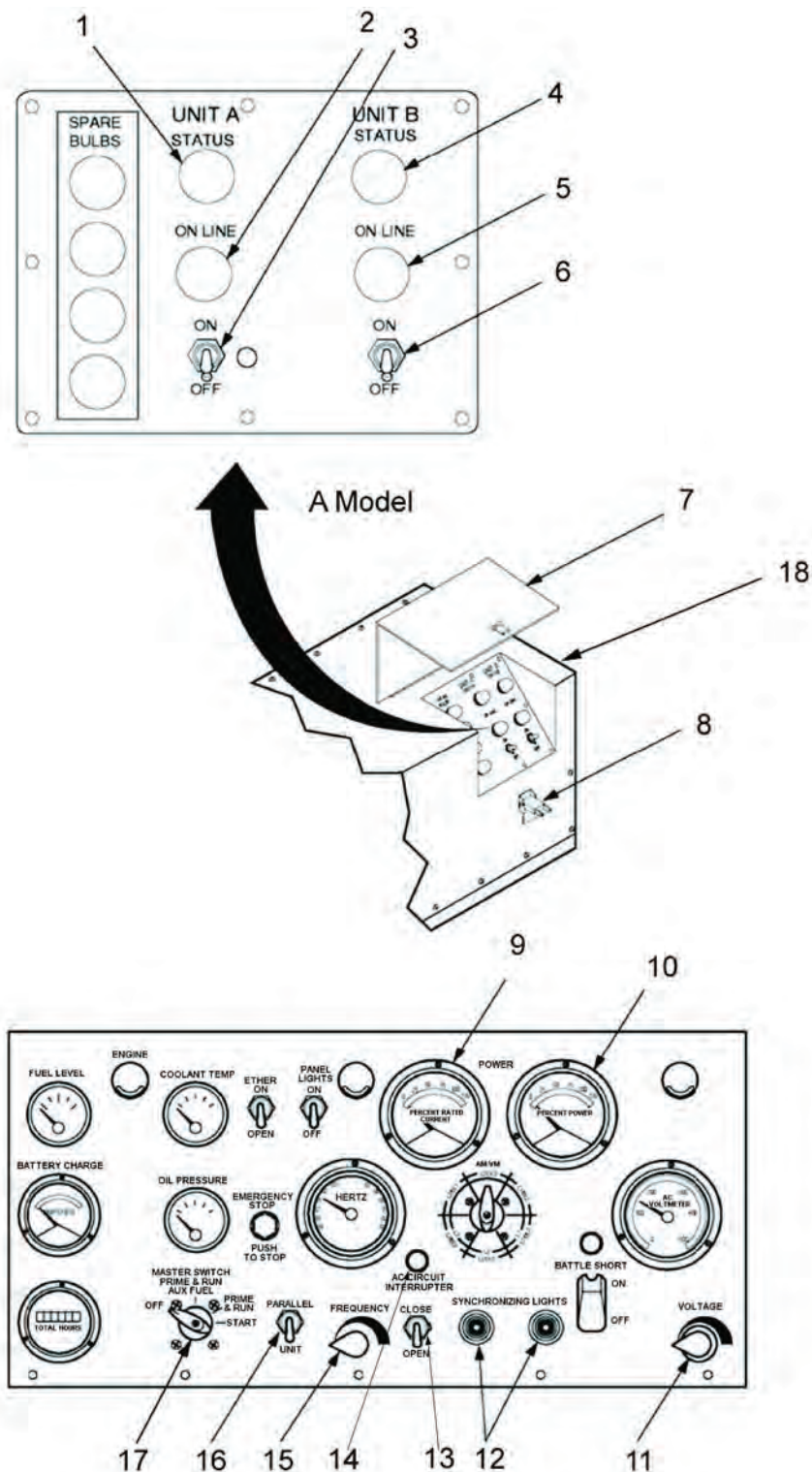


Figure 6. Power Plant Operation Using Analog Generator Sets (Sheet 2 of 2).

3. Refer to Operating a Single Generator Set from a Power Plant (Steps 3 through 10) to start a generator set and bring it on line. If generator set is already operating and supplying power, skip this step.
4. On operating generator set (generator Set 1) position UNIT-PARALLEL switch (Figure 6, Item 16) to

PARALLEL position.

5. Refer to Operating a Single Generator Set from a Power Plant (Steps 3 through 7) to start generator Set 2. Adjust voltage and frequency to match generator Set 1.

NOTE

Reset Ground Fault Circuit Interrupter on fault indicator before operating switch box. If Ground Fault Circuit Interrupter has been tripped and not reset, the switch box ON/OFF switch will not work.

6. Ensure convenience receptacle Ground Fault Circuit Interrupter (GFCI) is reset.
7. At switch box (Figure 6, Item 18), set generator Set 2 ON-OFF switch (Figure 6, Item 3 or 6) to ON (switch box STATUS & ONLINE lights for both generators should be lit).

CAUTION

Check to see the load contactor at load is open before attempting to place generator on line. Failure to observe this caution can result in damage to the generator sets.

8. At generator Set 2 control panel:
 - a. Set UNIT-PARALLEL switch (Figure 6, Item 16) to PARALLEL. Both SYNCHRONIZING LIGHTS (Figure 6, Item 12) should be alternating on and off together.

CAUTION

If SYNCHRONIZING LIGHTS on generator Set 2 do not go bright and dark in unison, the phasing is wrong. Shut down generator sets and check that load cables are connected properly. Failure to observe this caution can result in damage to generator sets.

- b. Increase frequency until SYNCHRONIZING LIGHTS (Figure 6, Item 12) blink together one or more times per second. The light may blink slower at some point before increasing.
 - c. Decrease frequency until SYNCHRONIZING LIGHTS (Figure 6, Item 12) blink together once every 3-4 seconds.
 - d. When both SYNCHRONIZING LIGHTS (Figure 6, Item 12) are dark, position and hold AC CIRCUIT INTERRUPTER switch (Figure 6, Item 13) of generator Set 2 in the CLOSED position until indicator light (Figure 6, Item 14) . SYNCHRONIZING LIGHTS (Figure 6, Item 12) should go out (both generators are now operating in parallel with no load).
9. Rotate FREQUENCY adjust potentiometer (Figure 6, Item 15) of generator Set 2 until AC AMPERES meter (Figure 6, Item 9) is approximately "0".
10. Rotate VOLTAGE adjust potentiometer (Figure 6, Item 11) of generator Set 1 until AC AMPERES meter (Figure 6, Item 9) is approximately "0".
11. Perform the PMCS listed as "DURING" in WP 0018, Table 1.

END OF TASK

Removal from Parallel Operation (Load Transfer) for Analog.

WARNING

If it is necessary to move a generator set which has been operating in parallel with another generator set, shut down remaining generator set connected to the load, prior to removing load and ground cables. Failure to comply with this warning can cause injury or death to personnel.

CAUTION

Prior to removal of generator set from parallel operation, make sure load does not exceed full load rating of generator set remaining on line. Failure to observe this caution can result in damage to generator set.

1. At the switch box (Figure 6, Item 18) for the set being taken off line, turn switch (Figure 6, Item 3 or 6) to the off position.

2. Set UNIT-PARALLEL switch (Figure 6, Item 16) to UNIT on the remaining operating set.
3. At the control panel of the generator set to be taken off line, position AC CIRCUIT INTERRUPTER switch (Figure 6, Item 13) to the OPEN position until indicator (Figure 6, Item 14) goes out. At switchbox (Figure 6, Item 18), STATUS and ON LINE lights for the generator shut down should be off.
4. On the set being shut down, rotate MASTER switch (Figure 6, Item 17) to OFF position.
5. At the control panel of the shut down generator set, place the UNIT-PARALLEL switch (Figure 6, Item 16) to UNIT.
6. Perform the PMCS listed as "AFTER" in WP 0018, Table 1 for the generator set that was shut down.
7. Repeat Steps 1 through 6 for generator Set 1, if it is being shut down also.

END OF TASK

Power Plant Switch Box Operating Procedures Using Digital Generator Sets

The power plant can be operated either in a single generator set configuration or parallel operation of the generator sets. The following paragraphs provide operating procedures for a single generator or two generator sets in parallel.

Operating a Single Generator Set from a Power Plant.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

NOTE

Before operating generator sets, all connections must be made to the switch box assembly.

1. Perform the Preventive Maintenance Checks and Services (PMCS) listed as "Before" in WP 0018, Table 1.
2. Release the clamping catch (Figure 7, Item 8) and open the control panel access cover (Figure 7, Item 7).
3. To start the generator set, place the MASTER CONTROL switch (Figure 7, Item 11) in the ON position. After CIM (Computer Interface Module) (Figure 7, Item 16) has booted, ensure CIM display screen (Figure 7, Item 16) is in main mode.
4. Hold FAULT RESET switch (Figure 7, Item 10) in ON position (for 2 seconds). Release switch.
5. Hold ENGINE CONTROL switch (Figure 7, Item 15) in START position (for 2 seconds) and observe CIM display screen (Figure 7, Item 16) until oil pressure reaches 25 psi (172 kPa), and engine has reached stable operating speed.
6. Release ENGINE CONTROL switch (Figure 7, Item 15) to PRIME & RUN position.
7. If external fuel system is being used, place ENGINE CONTROL switch (Figure 7, Item 15) to PRIME & RUN AUX FUEL position.
8. Adjust VOLTAGE ADJUST switch (Figure 7, Item 13) to required voltage.
9. Adjust FREQUENCY ADJUST switch (Figure 7, Item 14) to required frequency.
10. Hold AC CIRCUIT INTERRUPT switch (Figure 7, Item 12) in the closed position until CONTACTOR POSITION on CIM display screen (Figure 7, Item 16) reads CLOSED.
11. Check switch box (Figure 7, Item 9) to make sure that STATUS light (Figure 7, Item 1 or 4) is lit for the generator set just started. If light is not on, see the Troubleshooting Procedures (WP 0008).
12. At the switch box (Figure 7, Item 9), set the ON/OFF switch (Figure 7, Item 3 or 6) to the ON position (ON LINE light (Figure 7, Item 2 or 5) should light). The generator set is now ready to supply power to the load.
13. Close the control panel access cover (Figure 7, Item 7) and secure with clamping latch (Figure 7, Item 8).
14. Perform the PMCS listed as "DURING" in WP 0018, Table 1.
15. On the Power Plant switch box (Figure 7, Item 9), place the ON LINE switch (Figure 7, Item 3 or 6) for the operating generator set in the OFF position.
16. To shut down generator set, place AC CIRCUIT INTERRUPT switch (Figure 7, Item 12) in the OPEN position.

NOTE

Before shutting generator set off, allow it to operate five minutes with no load applied.

17. On the generator control panel rotate the ENGINE CONTROL switch (Figure 7, Item 15) to the OFF position. Move display cursor (Figure 7, Item 18) to shut down computer, then place the MASTER CONTROL switch (Figure 7, Item 11) in the OFF position once prompted.

NOTE

If using digital generator set (B Model), use switch box B & C Models only.

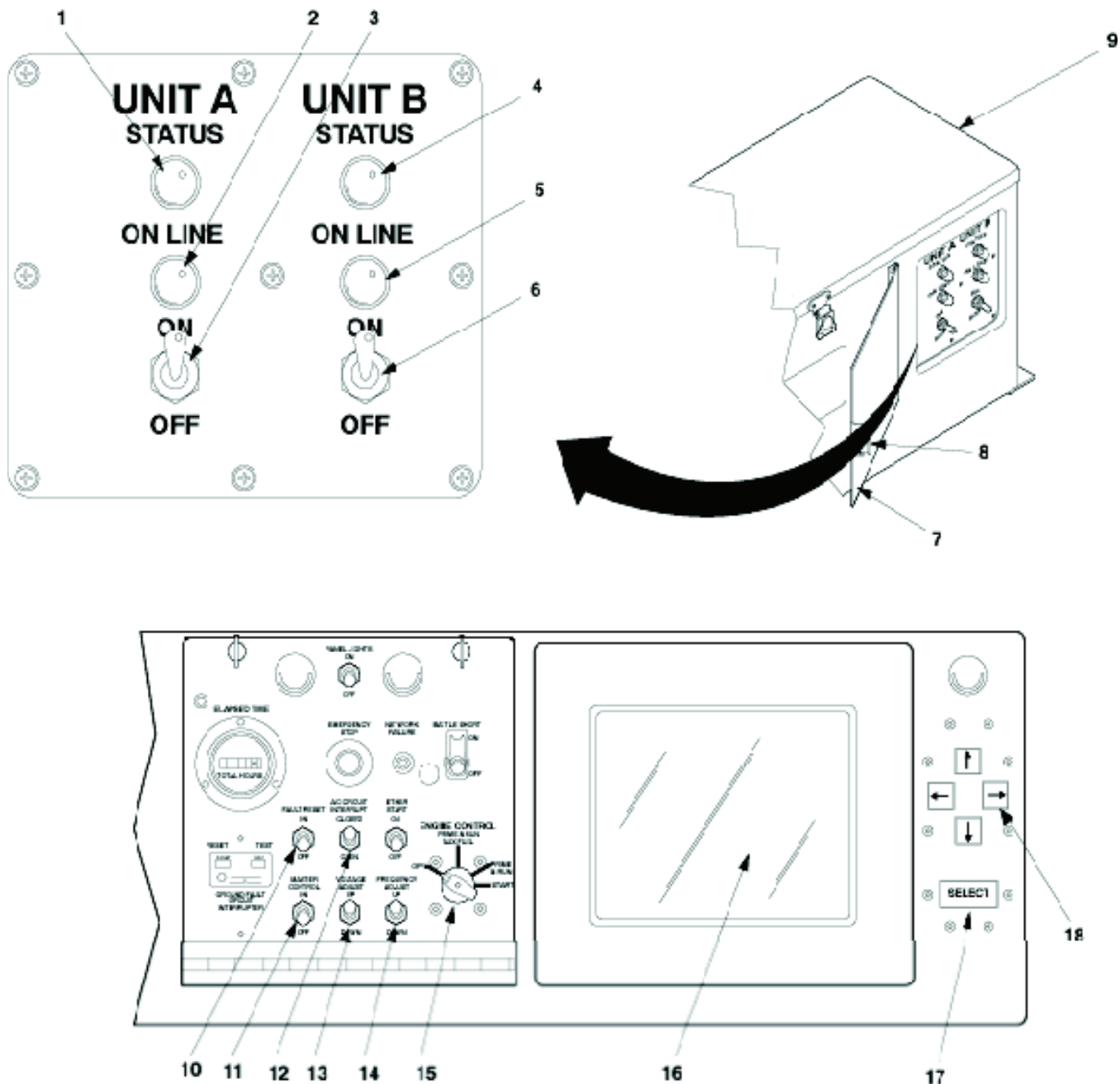


Figure 7. Power Plant Operation Using Digital Generator Sets.

END OF TASK

Operating Digital Generator Sets in Parallel. (Figure 7, Item 9). When paralleling at the switch box, perform the following procedures:

These generator sets can be operated in parallel through the B & C Models switch box.

WARNING

Prior to making any connections for parallel operation, ensure that there is no input to the load and that the generator sets are shut down. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

NOTE

"Set 1" is the generator set that is first started and/or running. "Set 2" is the generator that will be paralleled with "Set 1" or the generator to which the load will be transferred to.

1. Ensure that load requirement is equal to or below the combined rated capacity of the two generator sets.
2. Perform the Preventive Maintenance Checks and Services (PMCS) listed as "BEFORE" WP 0018, Table 1.

CAUTION

Do not close the AC CIRCUIT INTERRUPT switch (Figure 7, Item 12) on either of the generator sets or close the load contactor at load until specifically directed to do so. Closing any of these devices at any other time may severely damage one or both of the generator sets.

3. Refer to Operating a Single Generator Set from a Power Plant (Steps 3 through 11) to start a generator set and bring it on line. If generator set is already operating and supplying power, skip this step. Once on line, ensure CIM (Computer Interface Module) (Figure 7, Item 16) shows contactor CLOSED.
4. Refer to Operating a Single Generator Set from a Power Plant (Steps 3 through 11) to start generator Set 2. Adjust voltage and frequency to match generator Set 1.
5. At switch box (Figure 7, Item 9), set generator Set 2 ON-OFF switch (Figure 7, Item 3 or 6) to ON (switch box STATUS lights (Figure 7, Items 1 and 4) and ON-LINE lights (Figure 7, Items 2 and 5) for both generator sets should be lit).
6. At generator Set 2 control panel, place AC CIRCUIT INTERRUPT switch (Figure 7, Item 12) in the CLOSED position. The CONTACTOR POSITION on the CIM display (Figure 7, Item 16) should read CLOSED.
7. Close switch box control panel access cover (Figure 7, Item 7), secure with clamping catch (Figure 7, Item 8), and close generator set control panel access cover.
8. Perform the PMCS listed as DURING in WP 0018, Table 1.

END OF TASK

Removal from Parallel Operation (Load Transfer) for Digital.

WARNING

If it is necessary to move a generator set which has been operating in parallel with another generator set, shut down remaining generator set connected to the load, prior to removing load and ground cables. Failure to comply with this warning can cause injury or death to personnel.

CAUTION

Prior to removal of generator set from parallel operation, make sure load does not exceed full load rating of generator set remaining on line. Failure to observe this caution can result in damage to generator set.

1. At the switch box (Figure 7, Item 9) for the set being taken off line, place ON-OFF switch (Figure 7, Item 3 or 6) in the OFF position.
2. Momentarily hold the AC CIRCUIT INTERRUPT switch (Figure 7, Item 12) on the control panel of the generator set to be taken off line in the OPEN position until CONTACTOR POSITION on the CIM display screen (Figure 7, Item 16) reads OPEN. At the generator set switch box (Figure 7, Item 9), the ON and ON LINE lights should go off.
3. Place ENGINE CONTROL switch (Figure 7, Item 15) in the OFF position.
4. Perform the PMCS listed as "AFTER" in for the generator set that was shut down.
5. On generator Set 2 being taken off line, use the keypad arrow buttons (Figure 7, Item 18) to move cursor up or down until SHUTDOWN COMPUTER is displayed on the CIM display screen (Figure 7, Item 16). Press SELECT button (Figure 7, Item 17), and, from CIM display screen (Figure 7, Item 16) select EXIT button to exit the DCS (Digital Control System).
6. When the CIM display screen (Figure 7, Item 16) displays a message that it is safe to turn off the computer, place the MASTER CONTROL switch (Figure 7, Item 11) in the OFF position.
7. Repeat Steps 1 through 6 for generator Set 1, if it is being shut down also.

END OF TASK

DECALS AND INSTRUCTION PLATES

PU-805 and PU-805B Identification/Transportation Data Plates

Refer to Figure 8. This plate is located on the trailer body.

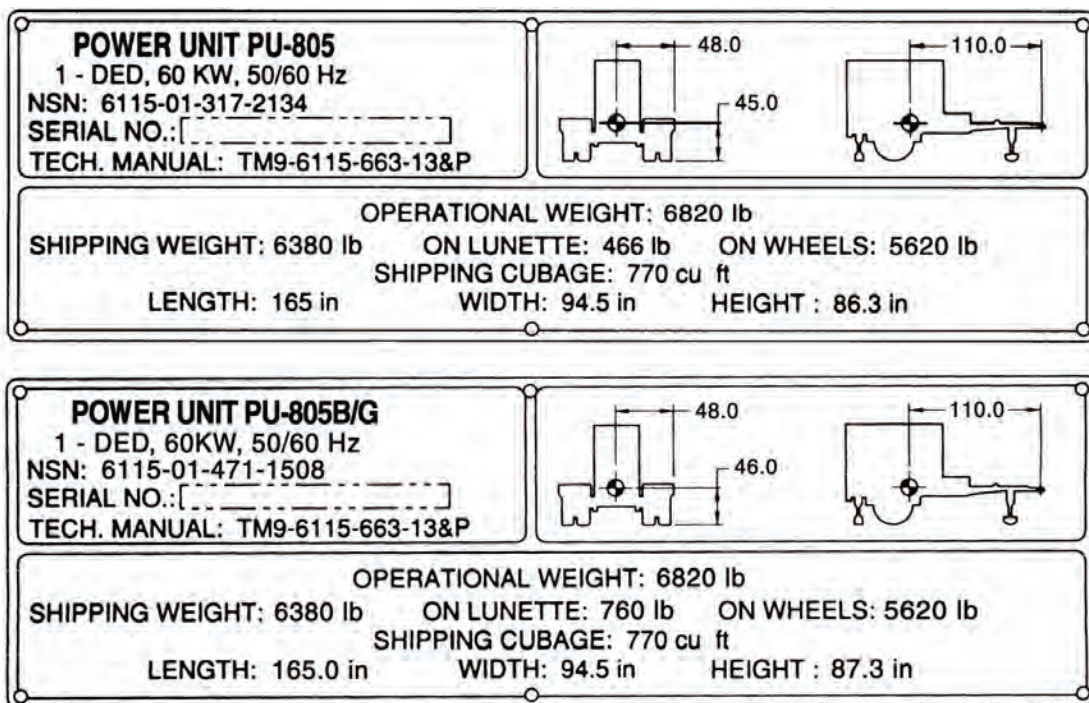


Figure 8. PU-805 and PU-805B Identification/Transportation Data Plates.

PU-806 and PU-806B Identification/Transportation Data Plates

Refer to Figure 9. This plate is located on the trailer body.

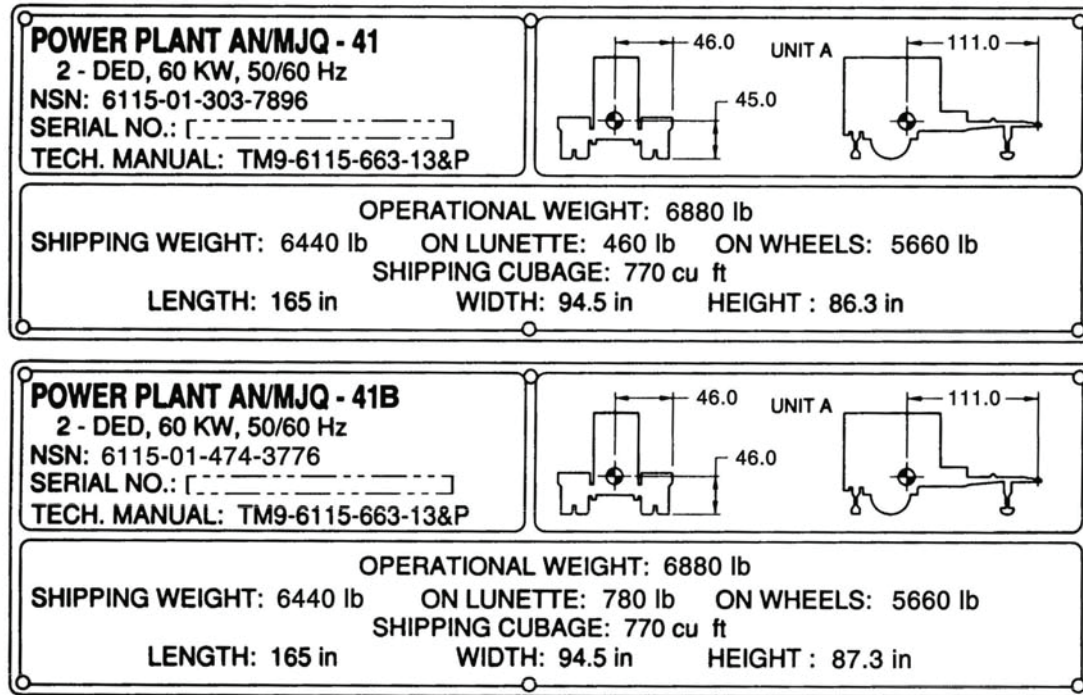


Figure 9. PU-806 and PU-806B Identification/Transportation Data Plates.

AN/MJQ-41 and AN/MJQ-41B Unit A Identification/Transportation Data Plates

Refer to Figure 10. This plate is located on the trailer body.

CAUTION

An AN/MJQ-41 generator set should not be paralleled with an AN/MJQ-41B generator set as extreme damage could occur to either or both of the generator sets.

NOTE

The switch box is mounted on Unit "A" of the AN/MJQ-41 and AN/MJQ-41B power plants.

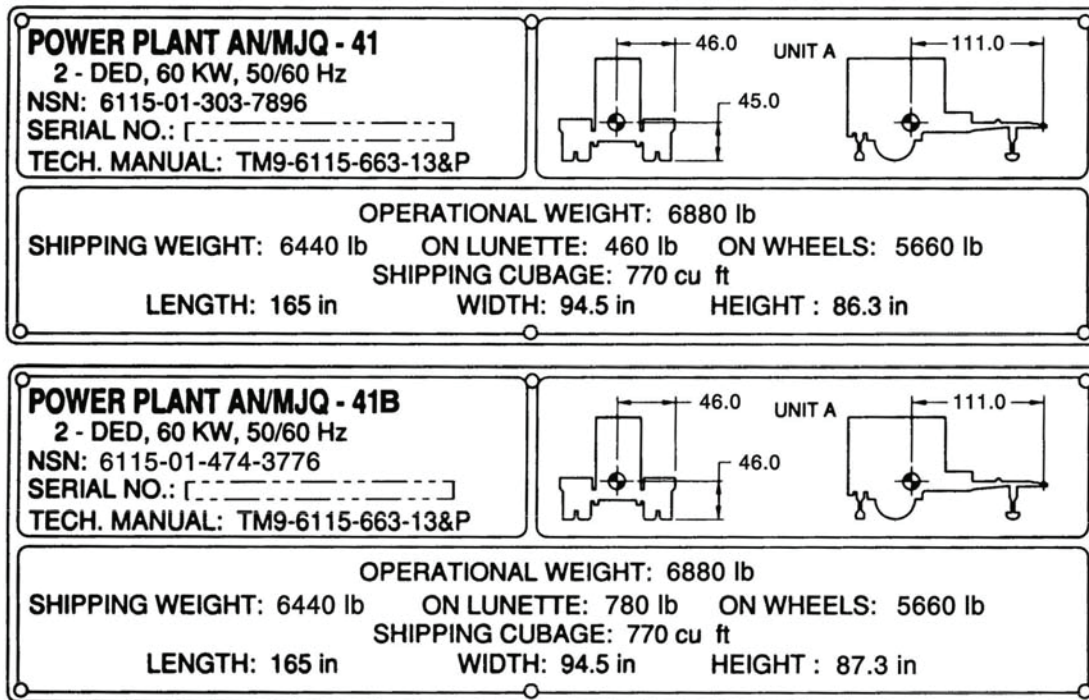


Figure 10. AN/MJQ-41 and AN/MJQ-41B Unit A Identification/Transportation Data Plates.

AN/MJQ-41 and AN/MJQ-41B Unit B Identification/Transportation Data Plates

Refer to Figure 11. This plate is located on the trailer body.

CAUTION

An AN/MJQ-41 generator set should not be paralleled with an AN/MJQ-41B generator set as extreme damage could occur to either or both of the generator sets.

NOTE

The switch box is mounted on Unit "A" of the AN/MJQ-41 and AN/MJQ-41B power plants.

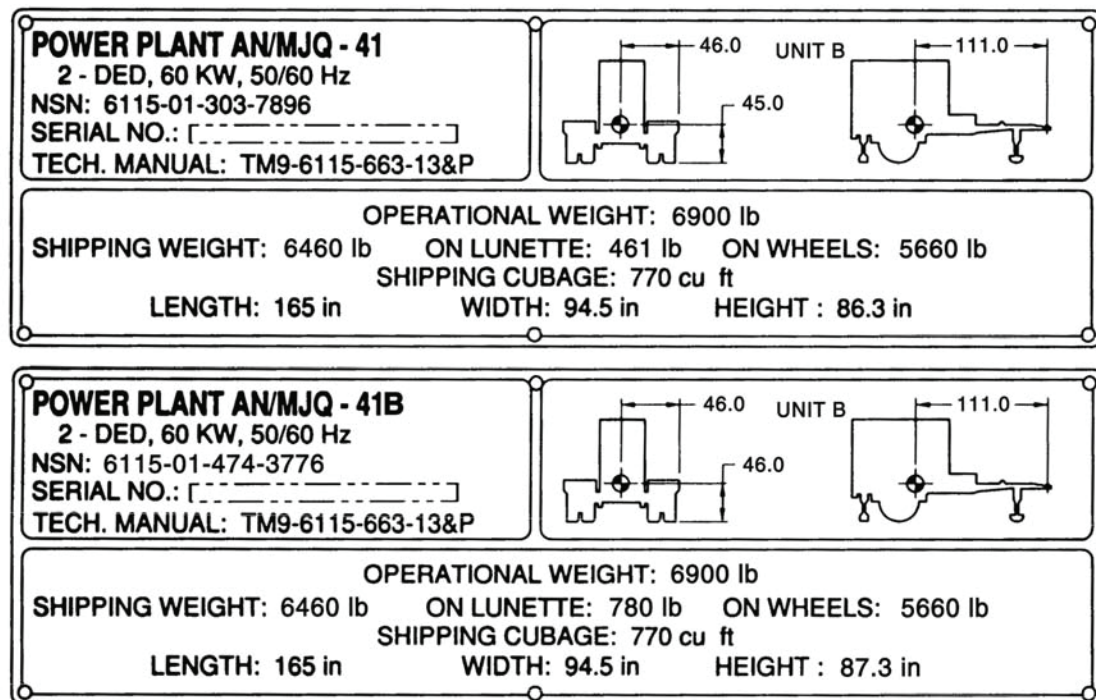


Figure 11. AN/MJQ-41 and AN/MJQ-41B Unit B Identification/Transportation Data Plates.

Power Plant Instruction Plates

Refer to Figure 12. These plates cover operating and load transfer procedures for the AN/MJQ-41 power plant. The operating procedures plate is located outside the right side panel of the switch box. The load transfer procedures plate is on the inside cover of the switch box.

POWER PLANT OPERATING PROCEDURES

BEFORE OPERATION

1. CHECK/SERVICE BOTH GEN SETS BEFORE OPERATION. CONNECT "GND" TERMINAL TO GROUND. CONNECT CONTACTOR POWER CABLE.

INDICATOR LIGHTS

1. STATUS LIGHT, INDICATES LINE BETWEEN GEN AND SW BOX IS HOT.
2. ON LINE LIGHT, INDICATES SWITCH BOX CONTACTOR IS CLOSED FOR INDICATED GEN.

OPERATING PROCEDURES

1. START EITHER GEN. ADJUST VOLTAGE AND FREQUENCY.
2. PUT GEN "CKT INTRPT SWITCH" IN "CLOSED" POSITION. (SWITCH BOX "STATUS" LIGHT SHOULD LIGHT.)
3. AT SWITCH BOX, SET "ON-OFF" SWITCH TO "ON". ("ON LINE" LIGHT SHOULD LIGHT.)

LOAD TRANSFER PROCEDURES (SETS CONNECTED FOR PARALLEL OPERATION PER TM)

1. ON "OPERATING" GEN, (GEN NO. 1) SET "UNIT-PARALLEL" SWITCH TO "PARALLEL".
2. START GEN NO. 2. ADJUST VOLTAGE AND FREQUENCY TO MATCH GEN NO. 1.
3. AT SW BOX, SET GEN NO. 2 "ON-OFF" SWITCH TO "ON". ("ON LINE " AND "STATUS" LIGHTS SHOULD LIGHT.)
4. AT GEN NO. 2, SET "UNIT-PARALLEL" SWITCH TO "PARALLEL". BOTH "SYNCHRONIZING" LIGHTS SHOULD BE GOING BRIGHT TO DARK TOGETHER.
5. INCREASE FREQUENCY UNTIL "SYNCHRONIZING" LIGHTS BLINK TOGETHER ONE OR MORE TIMES PER SECOND.
6. DECREASE FREQUENCY UNTIL LIGHTS BLINK TOGETHER ONCE EVERY 3-4 SECONDS.
7. WHEN LIGHTS ARE DARK, SET GEN NO. 2 "CKT INTRPT SWITCH" TO "CLOSE". GEN CONTACTOR LIGHT SHOULD LIGHT AND "SYNCHRONIZING" LIGHTS SHOULD GO OUT.
8. AT GEN NO. 1, SET "CKT INTRPT SWITCH" TO "OPEN", SET "UNIT-PARALLEL" SWITCH TO "UNIT". TURN "MASTER" SWITCH TO "STOP". (AT SWITCH BOX, "ON LINE" AND "STATUS" LIGHTS FOR GEN NO. 1 SHOULD GO OFF.)
9. AT GEN NO. 2, SET "UNIT-PARALLEL" SWITCH TO "UNIT".

Figure 12. Power Plant Instruction Plates.

AN/MJQ-41 and AN/MJQ-41B (Unit A) Switch Box Item Unique Identification (IUID) Plate

Refer to Figure 13. The plates are located on the left side of the Switch Box above the Data Identification Plate.

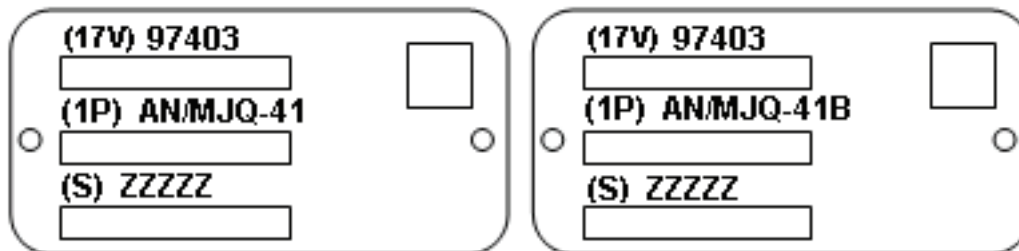


Figure 13. AN/MJQ-41 and AN/MJQ-41B (Unit A) Switch Box Item Unique Identification (IUID) Plates.

Item Unique Identification (IUID) Plate

Refer to Figure 14. The Item Unique Identification (IUID) Plates for the PU-805, PU-805B, PU-806, PU-806B, AN/MJQ-41, and AN/MJQ-41B are located on the roadside fender.

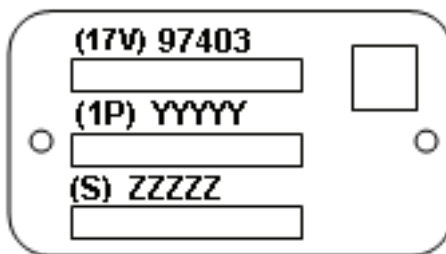


Figure 14. Item Unique Identification (IUID) Plates.

PREPARATION FOR MOVEMENT

Shut Down Generator Set

Refer to Removal from Parallel Operation (Load Transfer) for Analog, (Steps 1-7) to shut down analog generator sets. Refer to Removal from Parallel Operation (Load Transfer) for Digital, (Steps 1-7) to shut down digital generator sets.

END OF TASK

Disconnecting Load and/or Paralleling Cables

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator set, switch box or cables, unless specifically directed otherwise in the troubleshooting procedures. Failure to comply with this warning can cause injury or death to personnel.

NOTE

Before connecting the load, determine voltage and frequency requirements of the system or device that is being supplied with power. Refer to TM 9-6115-645-10 and TM 9-6115-672-14. Verify that voltage reconnection board is in proper position for voltage requirements and the frequency select switch is in the proper position. If board requires repositioning, notify next higher level of maintenance.

1. Disconnect power cable W19 (Figure 15, Item 12) from Unit B to the switch box.
2. Disconnect paralleling cables (Figure 15, Items 11 and 13) from generator to generator and from Unit B to the switch box.

END OF TASK

Power Unit. Refer to TM 9-6115-645-10 and TM 9-6115-672-14 for removal of power cables.

Power Plant. For switch box A Model, load may be disconnected from the switch box (Figure 15, Item 16) by either of two methods. One method is to disconnect the power cable from the J1 connector (Figure 15, Sheet 2, Item 6). The other method is to disconnect load cables from the load terminals (Figure 15, Sheet 2, Items 1, 2, 3, 4, and 5). Disconnect the load cable using the appropriate method. Disconnect Unit A from Unit B as follows:

1. Disconnect paralleling cables as follows:
 - a. Disconnect generator set paralleling cable (Figure 15, Item 11) from paralleling receptacles (Figure 15, Item 7) on both generator sets. Store paralleling cable (Figure 15, Item 11) with Unit B generator set.
 - b. Disconnect the switch box end of cable (Figure 15, Item 13) from J16 (Figure 15, Item 8) on Unit B generator set and remove from power cable sock (Figure 15, Item 10).
 - c. Disconnect the other end of switch box cable (Figure 15, Item 13) from connector J3 (Figure 15, Item 15) of the switch box (Figure 15, Item 16) located on Unit A. Store paralleling cable (Figure 15, Item 13) with Unit A generator set.

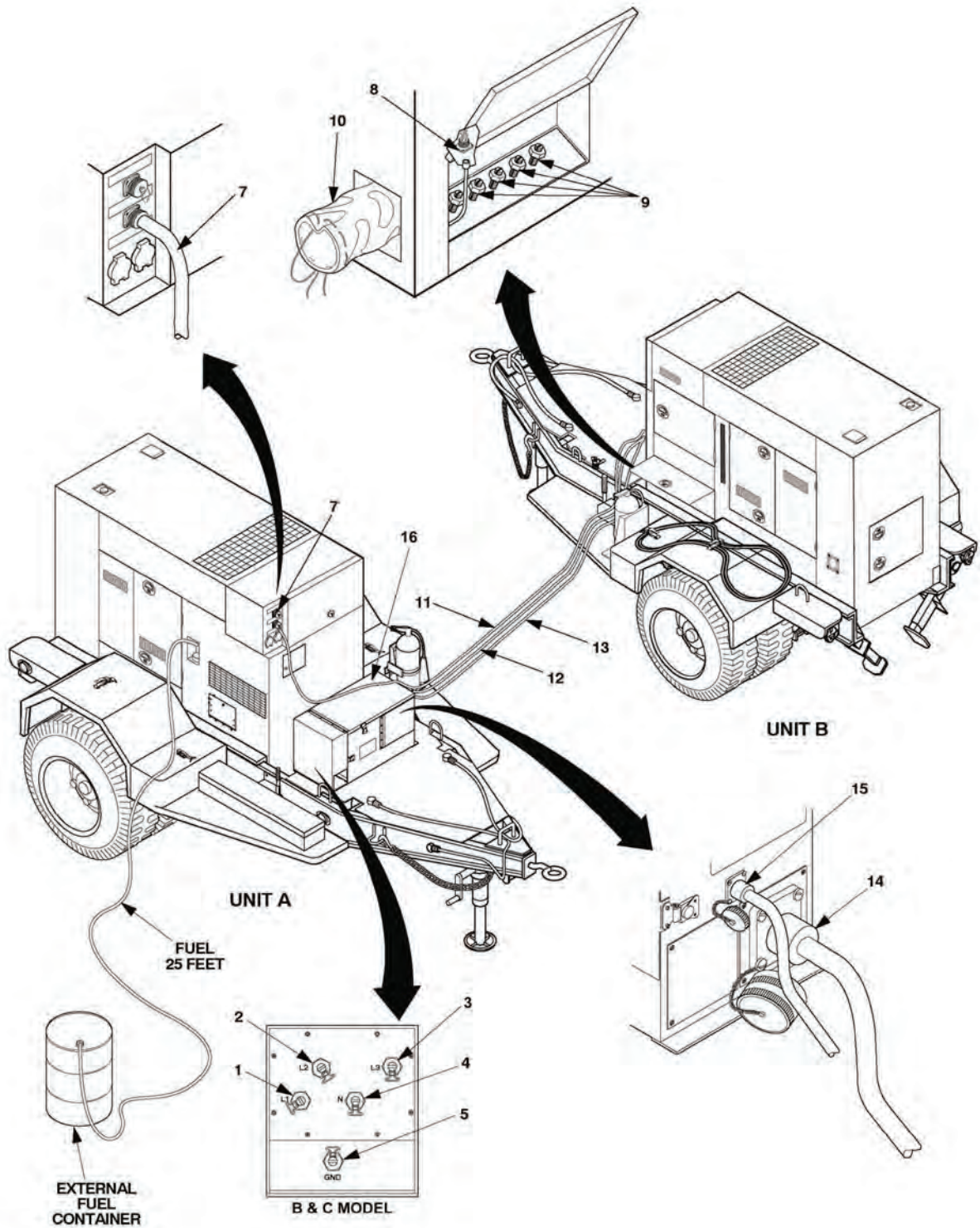


Figure 15. Disconnection of Power Plant (Sheet 1 of 2).

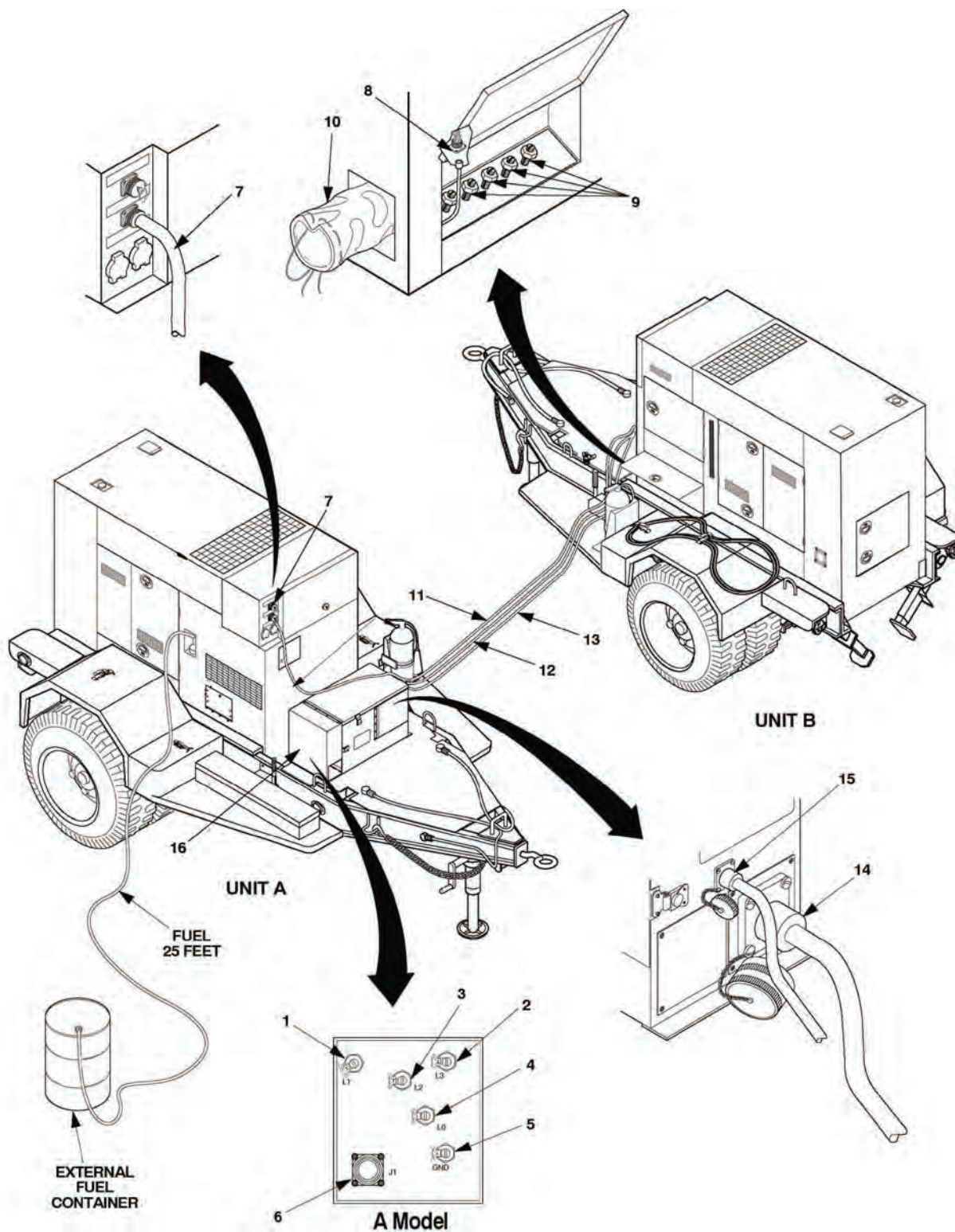


Figure 15. Disconnection of Power Plant (Sheet 2 of 2).

2. Removal of Ground Rod Assembly.

a. Disconnect ground cable (Figure 16, Item 11) as follows:

- (1) Loosen clamp screw (Figure 16, Item 1) and remove ground cable (Figure 16, Item 11).

- (2) Loosen nut (Figure 16, Item 10) from ground stud (Figure 16, Item 12). Roll up ground cable (Figure 16, Item 11) and store in accessory box.
- (3) Tighten nut (Figure 16, Item 10), loosened in Step 2, from ground stud (Figure 16, Item 12).
- b. Using slide hammer (Figure 16, Item 9), remove ground rod (Figure 16, Item 8) as follows:
 - (1) Remove coupler (Figure 16, Item 6) and ground cable clamp (Figure 16, Item 7) from ground rod section (Figure 16, Item 8).
 - (2) Install coupler (Figure 16, Item 6) on ground rod section (Figure 16, Item 8).

WARNING

Impact disk must be tightened to end of threads on rod. Also, lockwasher and nut must be tightened firmly against impact disk. Failure to comply with this warning can cause injury to personnel, and damage to the equipment.

- (3) Refer to "Grounding of Power Unit/Power Plant (Trailer)" Step 1 in WP 0005 and Figure 3. Assemble slide hammer (Figure 16, Item 9).
- (4) Connect slide hammer end (Figure 16, Item 9) to ground rod coupler (Figure 16, Item 6).
- (5) Using slide hammer (Figure 16, Item 9), pull ground rod (Figure 16, Item 8) out of the ground until the second coupler is exposed.
- (6) Store grounding cable (Figure 16, Item 11) with Unit B generator set.
- (7) Disconnect top ground rod section from second ground rod section.
- (8) Repeat Steps 3 through 7 for second and third ground rod sections.
- (9) Remove coupler(s) (Figure 16, Item 6) from each ground rod section (Figure 16, Item 8).
- (10) Clean ground rod sections (Figure 16, Item 8) and couplers (Figure 16, Item 6).
- (11) Refer to "Grounding of Power Unit/Power Plant (Trailer)" Step 9 in WP 0005, and disassemble slide hammer (Figure 16, Item 9).

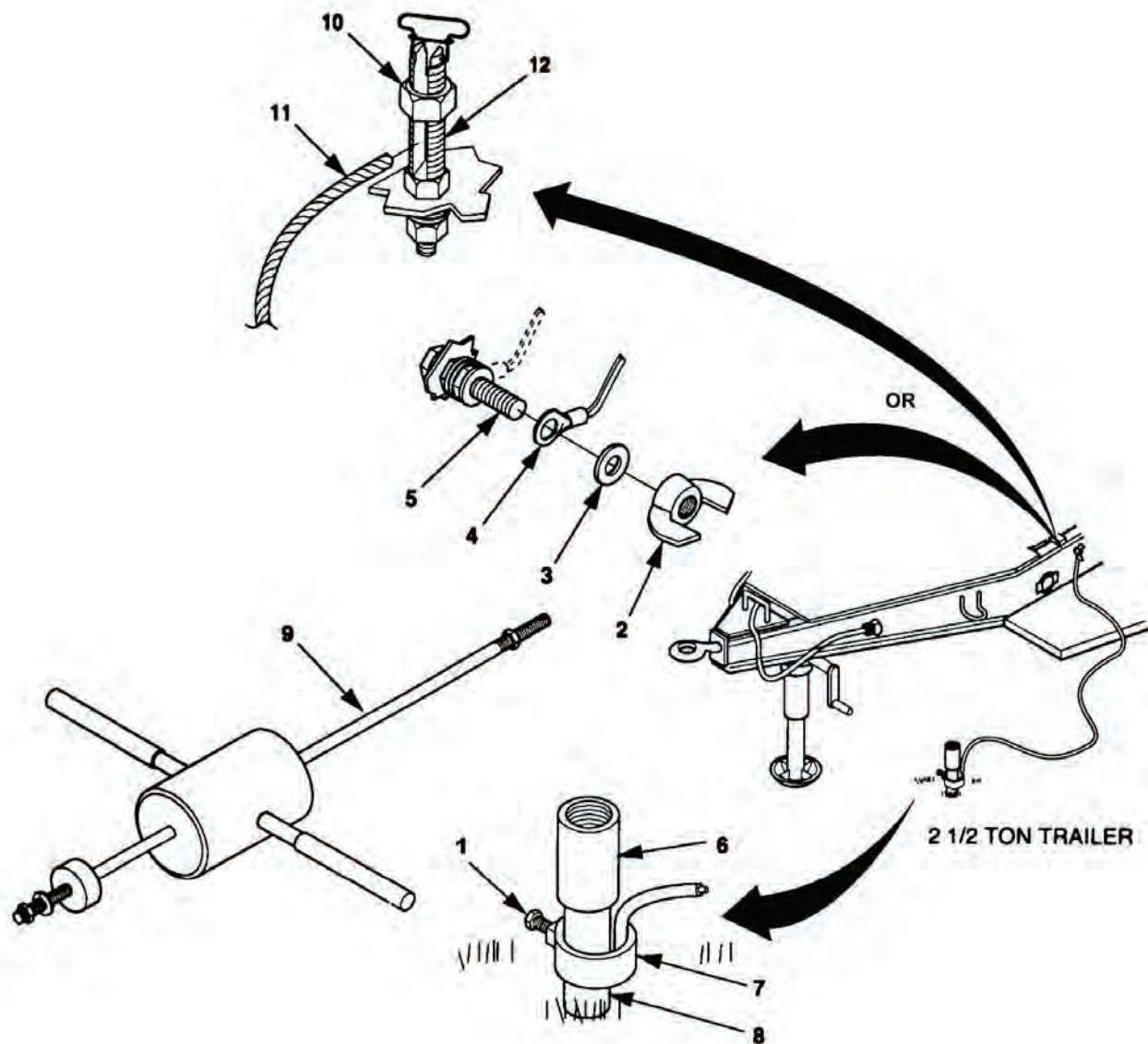


Figure 16. Removal of Ground Rod Assembly.

WARNING

Diesel fuel is flammable and toxic to eyes, skin, and respiratory tract. Skin and eye protection are required when working in contact with diesel fuel. Avoid repeated or prolonged contact. Provide adequate ventilation. Operators are to wash exposed skin and change chemical soaked clothing promptly if exposed to fuel. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Fuels used in the generator set are flammable. Do not smoke or use open flames when performing maintenance. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

3. Disconnect External Fuel Source. Disconnect auxiliary fuel hose as follows:

- a. Disconnect the auxiliary fuel hose from the generator set external fuel supply connector. Elevate the free end of the auxiliary fuel hose to drain fuel back into the external fuel source. Place free end of auxiliary fuel hose on a clean surface.
- b. Disconnect auxiliary fuel hose from fitting on container adapter (Figure 17, Item 2).
- c. Store auxiliary fuel hose behind battery access door.
- d. Remove extension pipe (Figure 17, Item 4), pipe (Figure 17, Item 3), adapter (Figure 17, Item 2), and strainer clamp (Figure 17, Item 1) and store in the accessory box.

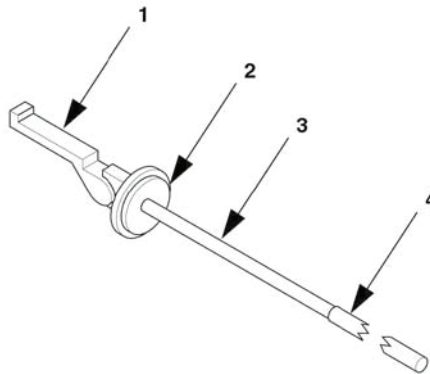


Figure 17. Auxiliary Fuel Source (Typical).

END OF TASK

END OF WORK PACKAGE

OPERATOR MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****OPERATION UNDER UNUSUAL CONDITIONS**

INITIAL SETUP:**Materials/Parts**

Rag, Wiping (WP 0115, Table 1, Item 7)

Personnel Required

Operator (1)
91D Assistant (1)

Equipment Condition

Ground IAW (WP 0005)
Engine control master switch in OFF position (WP 0005)

References

Description and Use of Operator Controls and Indicators (WP 0004)
Operation Under Usual Conditions (WP 0005)
Operator Troubleshooting Procedures (WP 0008)
Indicator Lamp and/or Lens Replacement (WP 0012)
Attaching Connector P1 to Unit A (WP 0013)
Expendable and Durable Item List (WP 0115)

GENERATOR SETS

Refer to TM 9-6115-645-10 and TM 9-6115-672-14.

TRAILER**NOTE**

When referring to TM 9-2330-205-14&P, make sure that the proper trailer chassis configuration is known.

Refer to TM 9-2330-205-14&P.

END OF WORK PACKAGE

CHAPTER 3

OPERATOR TROUBLESHOOTING PROCEDURES

FOR

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER
UNITS AND POWER PLANTS

CHAPTER 3

OPERATOR TROUBLESHOOTING PROCEDURES

WORK PACKAGE INDEX

<u>Title</u>	<u>WP Sequence No.</u>
Operator Troubleshooting Index.....	0007
Operator Troubleshooting Procedures	0008

OPERATOR MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****OPERATOR TROUBLESHOOTING INDEX**

GENERAL

Refer to TM 9-6115-645-10 and TM 9-6115-672-14 for generator set troubleshooting instructions, TM 9-2815-256-24 and TM 9-2815-260-24 for engine troubleshooting instructions, and TM 9-2330-205-14&P for trailer troubleshooting instructions. The symptom index for the power plant lists faults associated with switch box operation. Figures 1 through 4 provide a OK - NOT OK flowchart of each malfunction. Each malfunction listed includes a reference to the applicable figure that contains a chart to help you determine probable causes and corrective actions to take. The symptom index cannot list all faults that may occur, nor all the tests or inspections and corrective actions. If a malfunction is not listed or cannot be corrected by listed corrective actions, notify next higher level of maintenance for assistance.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The troubleshooting charts cover all three versions of the switch boxes, A, B, and C.

Malfunction/Symptom**Troubleshooting
Procedure**

Unit A STATUS indicator lamp fails to light with generator set running	0008-2
Unit B STATUS indicator lamp fails to light with generator set running	0008-3
ON LINE indicator lamp fails to light when ON/OFF switch is placed to ON position	0008-4
Cables are connected properly, but unit fails to parallel through switch box	0008-5

END OF WORK PACKAGE

OPERATOR MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****OPERATOR TROUBLESHOOTING PROCEDURES**

INITIAL SETUP:**Test Equipment**

Multimeter (WP 0112, Table 2, Item 3)

Tools and Special Tools

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

Personnel Required

Operator (1)

Equipment Condition

Ground IAW (WP 0005)
Engine control master switch in OFF position (WP 0005)

References

Description and Use of Operator Controls and Indicators (WP 0004)
Operation Under Usual Conditions (WP 0005)
Operation Under Unusual Conditions (WP 0006)
PMCS (WP 0010)
Indicator Lamp and/or Lens Replacement (WP 0012)
Attaching Connector P1 to Unit A (WP 0013)

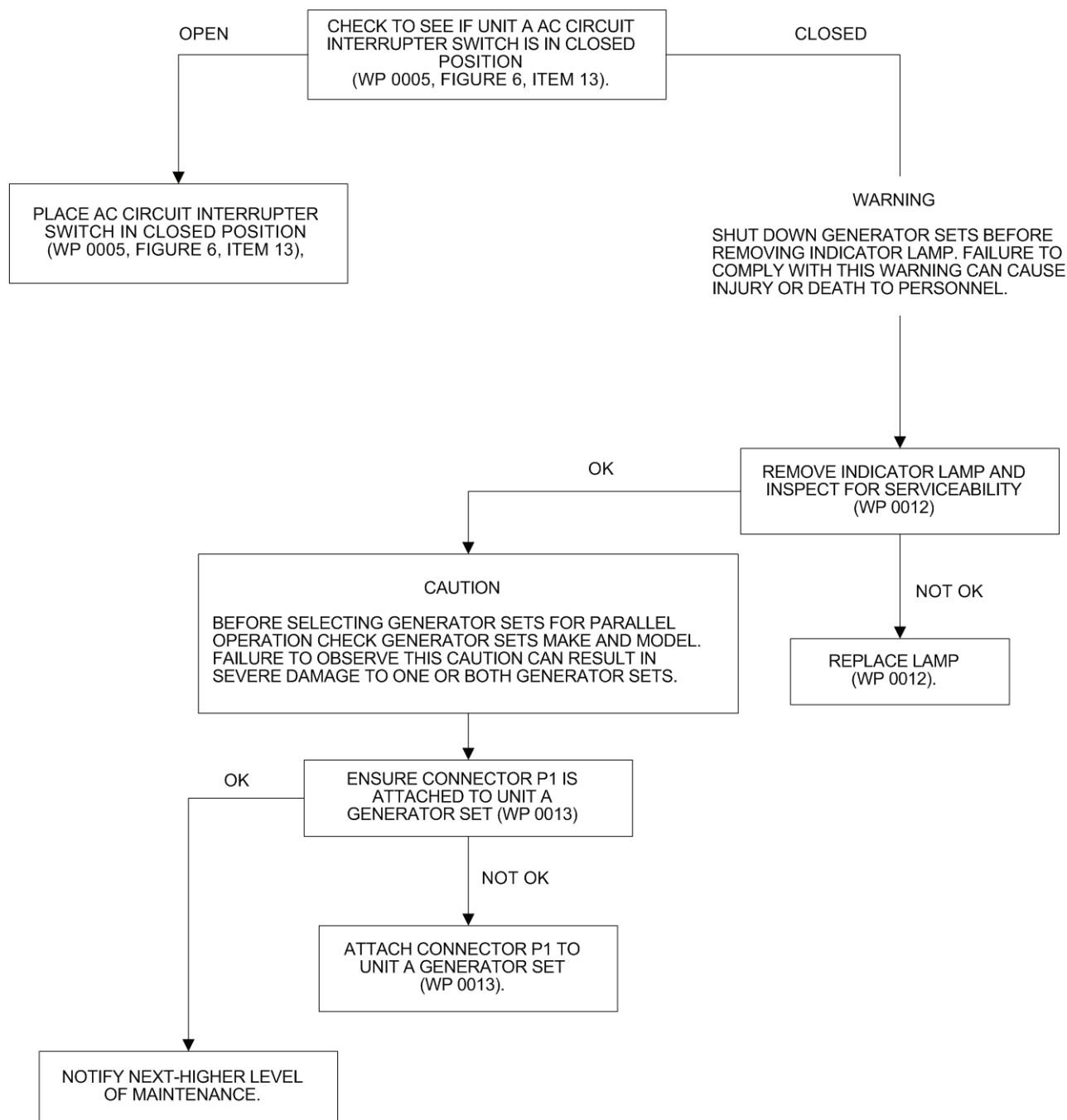


Figure 1. Unit A STATUS Indicator Lamp Fails to Light With Generator Set Running.

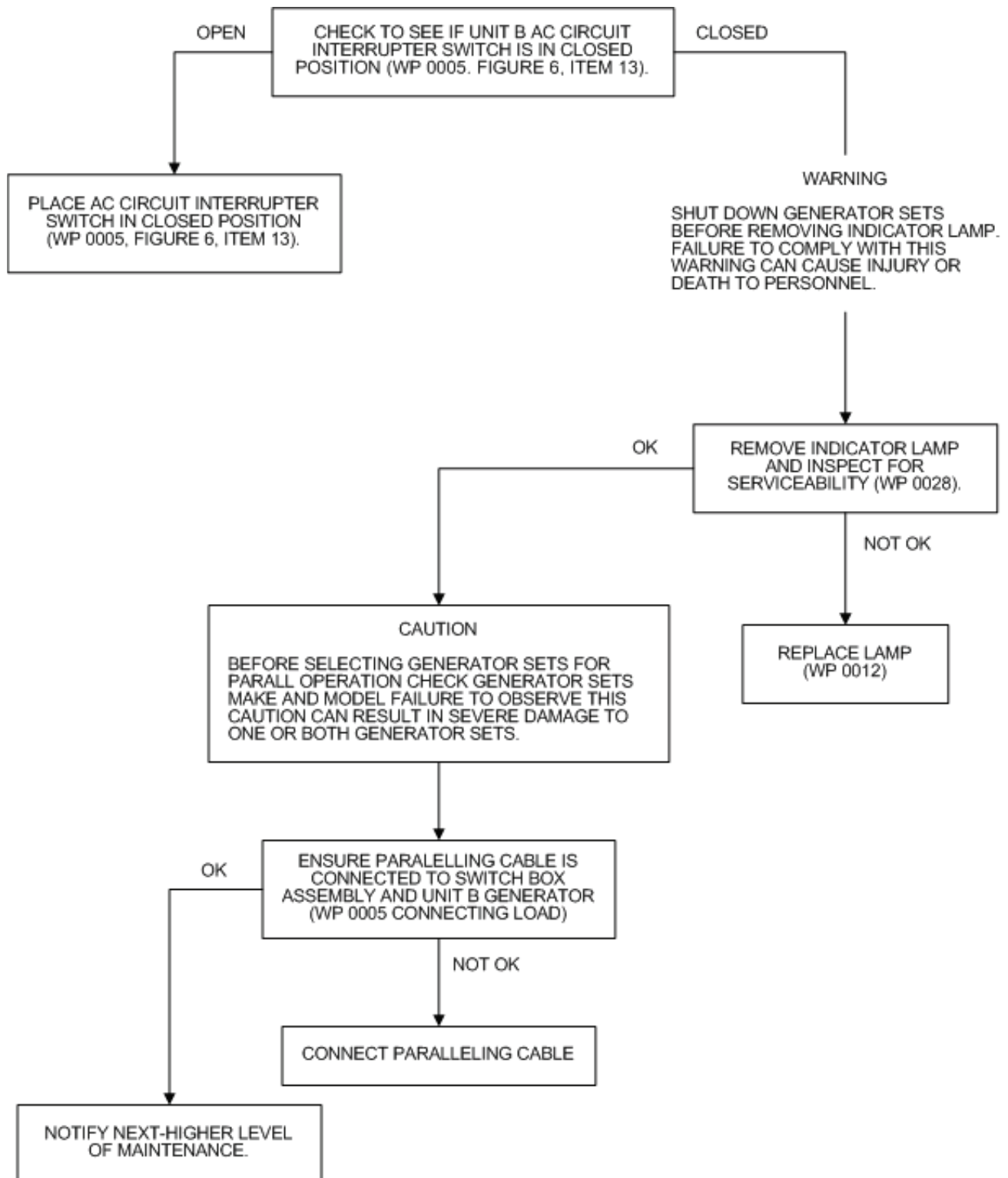


Figure 2. Unit B STATUS Indicator Lamp Fails to Light With Generator Set Running.

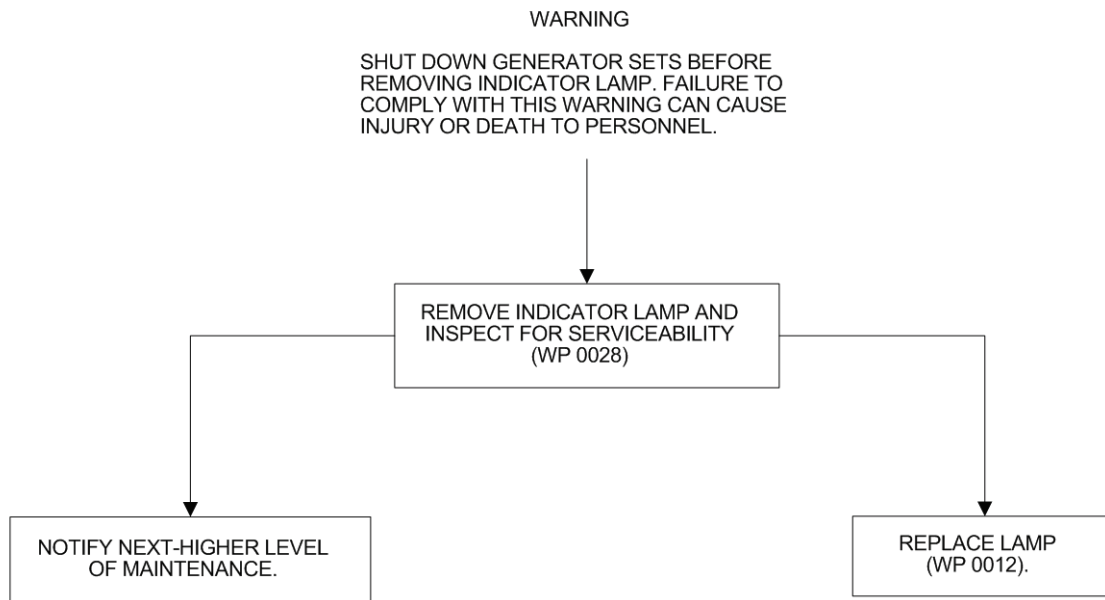


Figure 3. ON LINE Indicator Lamp Fails to Light When ON/OFF Switch Is Placed to ON Position.

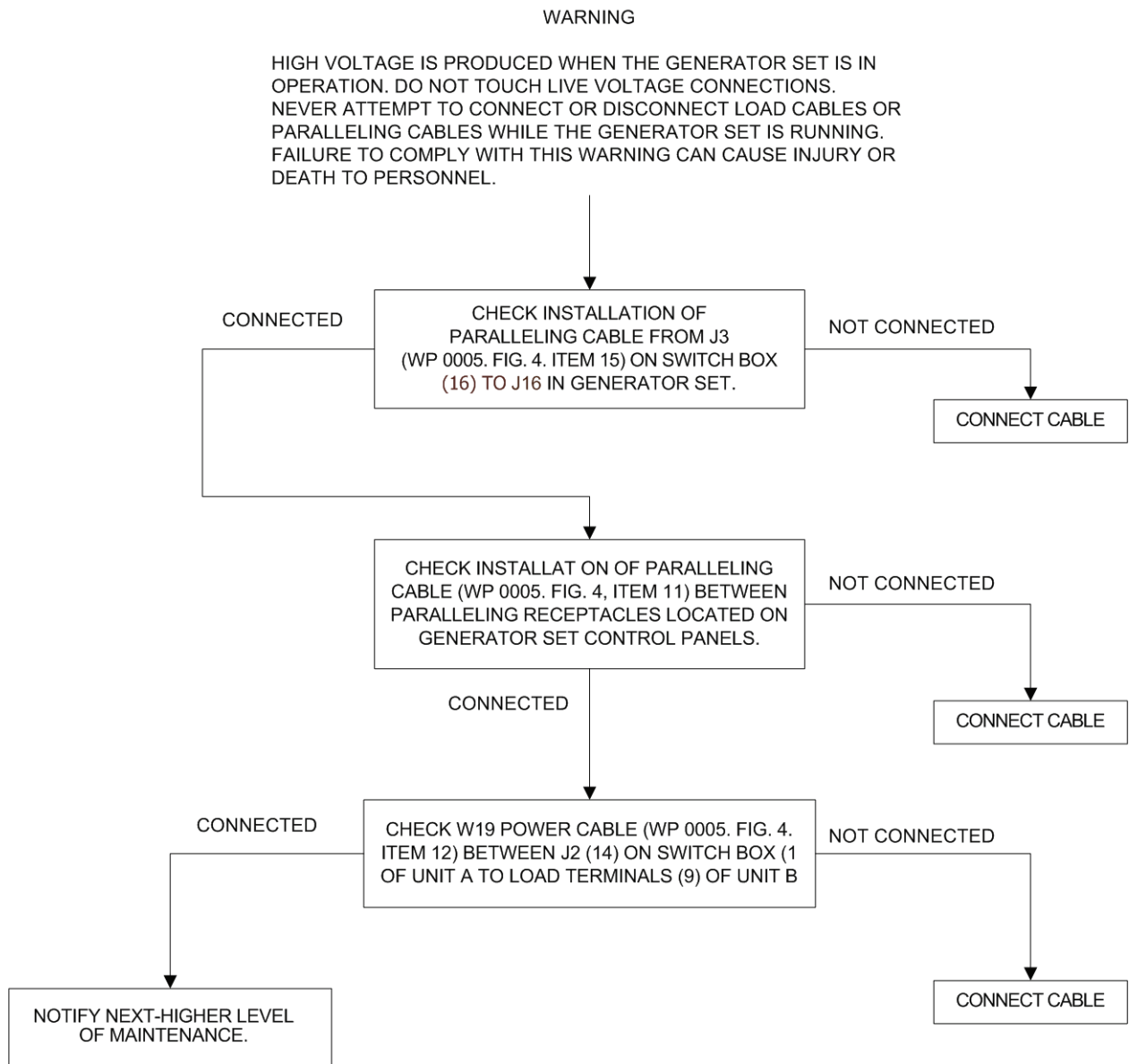


Figure 4. Cables Are Connected Properly, But Unit Fails to Parallel Through Switch Box.

END OF WORK PACKAGE

CHAPTER 4

OPERATOR MAINTENANCE INSTRUCTIONS

FOR

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER
UNITS AND POWER PLANTS

CHAPTER 4

OPERATOR MAINTENANCE INSTRUCTIONS

WORK PACKAGE INDEX

<u>Title</u>	<u>WP Sequence No.</u>
PMCS Introduction	0009
PMCS, Including Lubrication Instructions.....	0010
Operator Maintenance.....	0011
Indicator Lamp and/or Lens Replacement.....	0012
Attaching Connector P1 to Unit A.....	0013

OPERATOR MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

PMCS INTRODUCTION

INTRODUCTION TO OPERATOR PMCS TABLE

WP 0010 (PMCS Table 1) has been provided so you can keep your equipment in good operating condition and ready for its primary mission.

Warnings, Cautions, and Notes

Always observe the **WARNINGS**, **CAUTIONS**, and **NOTES** appearing in your PMCS table. Warnings and cautions appear before applicable procedures. You must observe **WARNINGS** to prevent serious injury to yourself and others. You must observe **CAUTIONS** to prevent your equipment from being damaged. You must observe **NOTES** to ensure procedures are performed properly.

Explanation of Table Entries

The PMCS table is divided into five columns. Each column is explained in the following paragraphs.

Item No. Column. Numbers in this column are for reference. When completing DA Form 2404 (Equipment Inspection and Maintenance Worksheet), include the item number for the check/service indicating a fault. Item numbers also appear in the order that you must do checks and services for the intervals listed.

Interval Column. This column tells you when you must do the procedure described in the procedure column. "BEFORE" procedures must be done before you operate the equipment for its intended mission. "DURING" procedures must be done during the time you are operating the equipment for its intended mission. "AFTER" procedures must be done immediately after you have operated the equipment. Perform "WEEKLY" procedures at the listed interval.

Item to be Checked or Serviced Column. This column lists the location and the item to be checked or serviced. The item location is underlined.

Procedure Column. This column gives the procedure for checking or servicing the item listed in the location, item to check/service column. You must perform the procedure to know if the power unit or power plant is ready or available for its intended mission or operation. You must do the procedure at the time stated in the interval column.

Equipment not Ready/Available if: Column. Information in this column tells you what faults will keep your equipment from being capable of performing its primary mission. If you perform checks or services that show faults listed in this column, do not operate the equipment.

Other Table Entries

Be sure to observe all special information and notes that appear in your table.

Special Instructions

Preventive maintenance is not limited to performing the checks and services listed in the PMCS Table. Covering unused receptacles, stowing unused accessories, and other routine procedures such as equipment inventory, cleaning components, and touch up painting are not listed in the table. These are things you should do any time you see that they need to be done. If a routine check is listed in the PMCS Table, it is because experience has shown that problems may occur with this item. Take along tools and cleaning cloths needed to perform the required checks and services. Use the following information to help identify potential problems before and during checks and services. Use the information in the following paragraphs to help you identify problems at any time.

Trailer PMCS. Trailer checks and services in the PMCS Table are described as performed on a specific model trailer.

Generator Set PMCS. Generator set checks and services in the PMCS Table are described as performed on a single generator set. The procedures must be performed on each of the generator sets that make up a power plant.

Routine Inspections. Use the following information to help identify potential problems before and during checks and services.

WARNING

Solvent used to clean parts is potentially dangerous to personnel and property. Clean parts in a well ventilated area. Avoid inhalation of solvent fumes. Wear goggles and rubber gloves to protect eyes and skin. Wash exposed skin thoroughly. Do not smoke or use near open flame or excessive heat. Failure to comply with this warning can cause injury to personnel, and damage to the equipment.

CAUTION

Keep cleaning solvents, fuels and lubricants away from rubber or soft plastic parts. They will deteriorate material.

1. Keep it clean. Dirt, grease, and oil get in the way and may cover up a serious problem. Use dry cleaning solvent to clean metal surfaces.
2. Use soap and water to clean rubber or plastic parts and material.
3. Check all bolts, nuts, and screws to make sure they are not loose, missing, bent, or broken. Do not try to check them all with a tool, but look for chipped paint, bare metal, or rust around bolt heads. If you find one loose, tighten it or report it to field level of maintenance.
4. Inspect welds. Look for loose or chipped paint, rust, or gaps where parts are welded together. If a broken weld is found, report it to field level of maintenance.
5. Inspect electrical wires, connectors, terminals, and receptacles. Look for cracked or broken insulation, bare wires, and loose or broken connectors. Tighten loose connectors and make sure wires are in good condition. Examine terminals and receptacles for serviceability. If deficiencies are found, report them to field level of maintenance.
6. Inspect hoses and fluid lines. Look for wear, damage, and leaks. Make sure that clamps and fittings are tight. Wet spots and stains around a fitting or connector can mean a leak. If a leak comes from

Leakage Definitions

You must know how fluid leakage affects the status of your equipment. The following are definitions of the types/classes of leakage you need to know to be able to determine the status of your equipment. Learn and be familiar with them. When in doubt, notify your supervisor.

Table 1. Leakage Definitions.

Leakage Class	Leakage Definition
Class I	Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.
Class II	Leakage of fluid great enough to form drops, but not enough to cause drops to drip from the item being checked/inspected.
Class III	Leakage of fluid (other than fuel) greater than three drops per minute that fall from the item being inspected.

Operation of Power Plant with Minor Leaks

CAUTION

Equipment operation is allowable with minor leakage (Class I or II) of any fluid except fuel. Fluid capacity must be considered before deciding to continue operation of the equipment with minor leaks. When operating with Class I or II leaks, fluid level must be checked more often than required by the PMCS table. Parts without fluid will stop working and/or cause equipment damage.

1. Consider the equipment's capacity for the fluid that is leaking. If the capacity is small, the fluid level may soon become too low for continued operation. If in doubt, notify your supervisor.
2. Check the fluid level more often than required in the PMCS table. Add fluid as needed.

Corrosion Prevention and Control (CPC)

CPC of Army material is of continuing concern. It is important that any corrosion problems with the power plant be reported so that the problem can be corrected and improvements can be made to prevent the problem in the future items. While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem. If a corrosion problem is identified, it can be reported using Standard Form 368, Product Quality Deficiency Report. Use of key words such as "corrosion," "rust," "deterioration," or "cracking" will ensure that the information is identified as a CPC problem. The form should be submitted to the address specified in DA Pam 738-750.

Order in Which PMCS Will be Done

Figure 1 shows the order in which you are to perform your PMCS on the Power Unit or Power Plant. Figure 1 shows a typical configuration having one generator set. *Keep in mind that a power plant consists of two power units and PMCS must be performed on each power unit.* The number callouts on Figure 1 do not match the item number in WP 0010, Table 1.

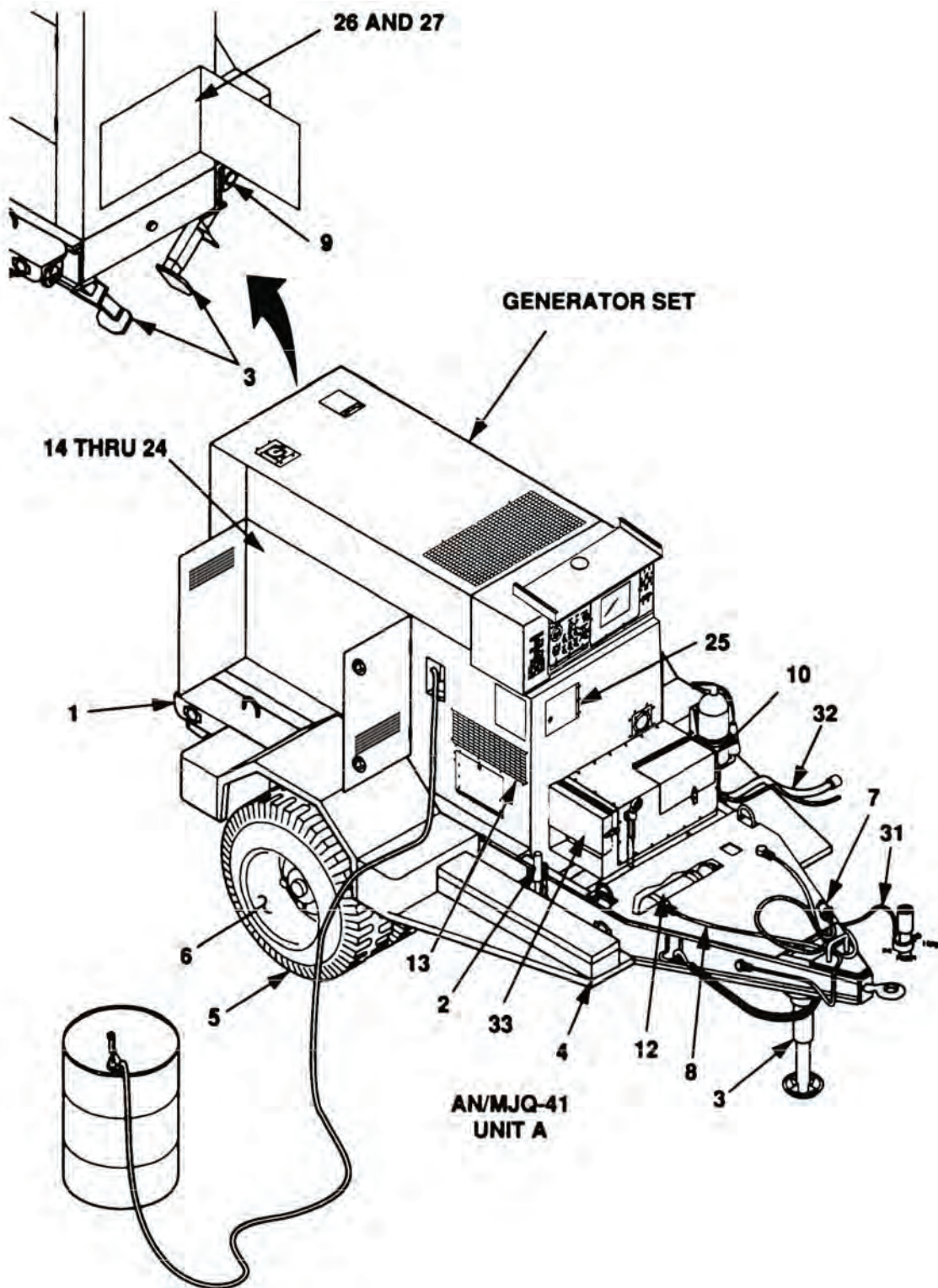


Figure 1. Operator PMCS Routing Diagram for Power Plant, AN/MJQ-41 (Sheet 1 of 2).

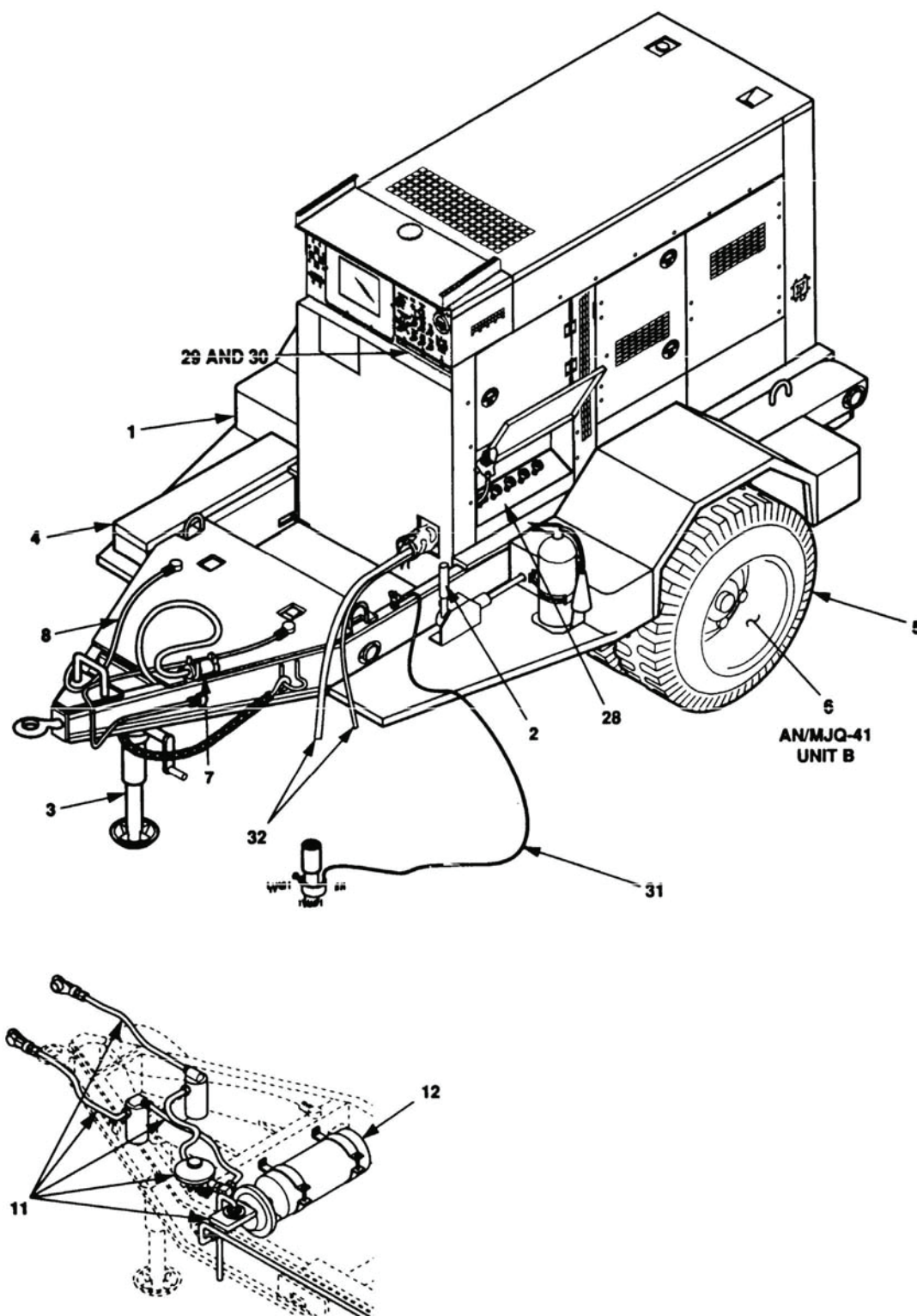


Figure 1. Operator PMCS Routing Diagram for Power Plant, AN/MJQ-41 (Sheet 2 of 2).

END OF WORK PACKAGE

OPERATOR MAINTENANCE

**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
PMCS, INCLUDING LUBRICATION INSTRUCTIONS**

INITIAL SETUP:**Materials/Parts**

Rag, Wiping (WP 0115, Table 1, Item 7)

Personnel RequiredOperator (1)
91D Assistant (1)**References**Description and Use of Operator Controls and
Indicators (WP 0004)**OPERATOR LUBRICATION**

Lubrication instructions for the generator set are contained in LO 9-6115-645-12, TM 9-6115-672-14, and TM 9-6115-645-10. Lubrication instructions for the diesel engine are contained in TM 9-2815-255-24 and TM 9-2815-259-24. Lubrication instructions for the trailer are contained in TM 9-2330-205-14&P.

NOTE

If equipment must be in continuous operation, check and service only those items that can be checked and serviced without disturbing operation. Make complete checks and services when equipment can be shut down. When a procedure is required for both weekly and "BEFORE" intervals, it is not necessary to do the procedure twice if the equipment is operated during the weekly period.

Table 1. Field Preventive Maintenance Checks and Services.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
WARNING In extreme cold weather, skin can stick to metal. Avoid contacting metal items with bare skin in extreme cold weather. Failure to comply with this warning can cause injury to personnel. WARNING Do not disconnect trailer from towing vehicle before hand brakes are set and front landing leg and rear support leg lowered. Failure to comply with this warning can cause injury or death to personnel from trailer tipping or rolling, and damage to the equipment. WARNING If trailer is not coupled to towing vehicle, ensure that wheels are securely chocked. Failure to comply with this warning can cause trailer to roll, resulting in injury to personnel and damage to equipment.				
		<u>TRAILER</u>		

Table 1. Field Preventive Maintenance Checks and Services. - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
1	BEFORE	VISUAL INSPECTION	a. Check for damage. • Fenders/body • Generator set door • Reflectors • Landing leg • Skid base • Lunette • Chains • Identification plates • Fuel and coolant b. Check on, around, and under equipment for fuel, oil, or coolant leaks.	Any condition that renders the power unit/power plant not mission capable. Class III coolant or any class fuel leak is detected.
2	BEFORE	HANDBRAKE	a. Check operation of handbrake lever (Item 1). Lever should move freely through its entire travel. b. Check adjustment of handbrake lever (Item 1). Lever is properly adjusted when it is difficult to move beyond two-thirds of the way to the applied position. If out of adjustment, see Step d. c. With trailer hooked to towing vehicle, set handbrake lever (Item 1). Move trailer slightly to see if handbrakes hold wheels. If not, proceed to Step d. d. Adjust handbrake as follows: (1) Release handbrake lever (Item 1). (2) Turn adjustment knob (Item 2) clockwise to tighten or counterclockwise to loosen. If unable to adjust, refer to Field Level Maintenance. (3) Check adjustment (Refer to Step b). Repeat Steps (1) and (2) as required. Repeat Step c.	Handbrake lever (Item 1 or 2) locked in applied position.

Table 1. Field Preventive Maintenance Checks and Services. - Continued

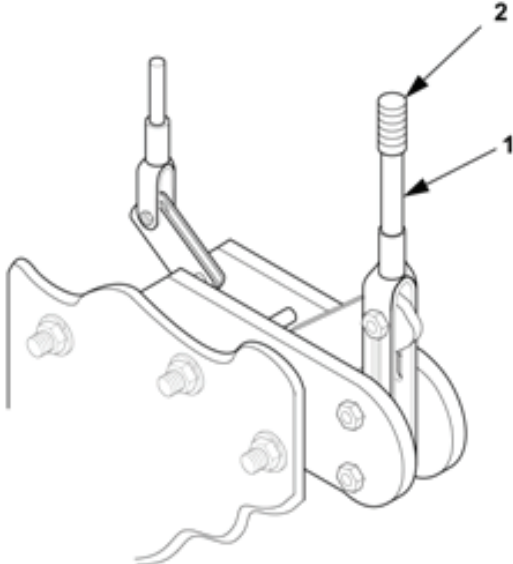
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
				
3	BEFORE	LANDING LEG AND STEP JACK	a. Check for loose, missing, damaged, or corroded parts, and for any unusual signs of deterioration. b. With trailer connected to towing vehicle, check landing leg assembly (Item 3) for easy operation. c. Check landing leg for proper mounting, alignment, and general condition. d. Check jacks (Item 4) for ease of operation. e. Check jacks (Item 4) for secure mounting. f. Ensure step jacks can be locked in stored and support positions. g. Ensure locking pin is attached to step jack with chain. h. Ensure step jacks can be adjusted up or down.	Landing leg assembly will not secure in stored position, or will not support trailer. Rear support leg/step jacks will not secure in stored position, or will not support trailer.

Table 1. Field Preventive Maintenance Checks and Services. - Continued

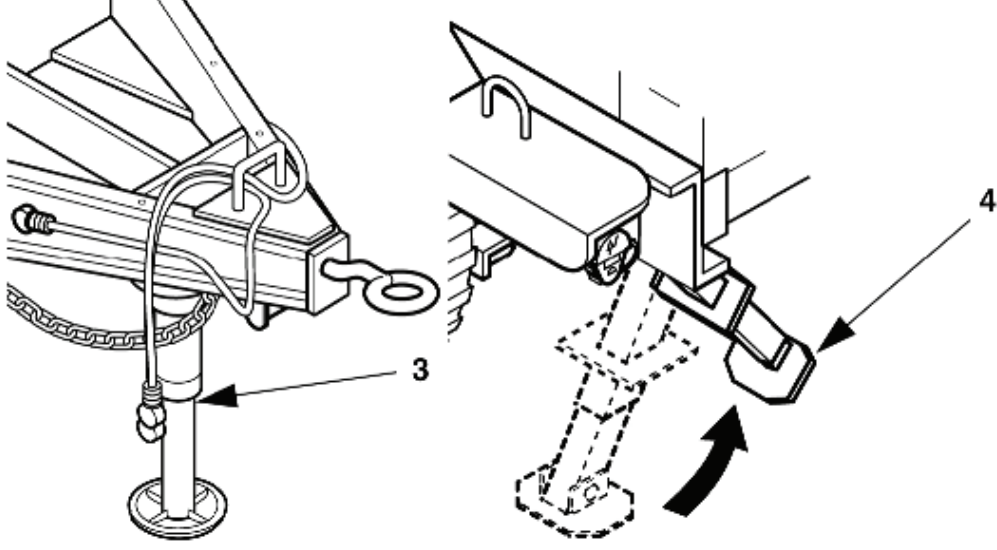
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
				
NOTE The following accessories are stored in the accessory box: Fuel container adapter; Ground cable; Hammer, 8 lb; Load terminal wrench; and Slide hammer. Ground rod may be stored in generator set (Item 5).				
4	BEFORE	ACCESSORIES	Check that following accessories are not missing or damaged: • Auxiliary fuel hose(s) (stored behind battery access door). • Fire Extinguisher (stored in fire extinguisher bracket on fender), check seal. • Fuel container adapter. • Ground cable. • Ground rod. • Hammer, 8 lb. • Load terminal wrench. • Slide hammer.	Fire extinguisher is missing, seal is broken. Ground rod and/or ground cable missing.

Table 1. Field Preventive Maintenance Checks and Services. - Continued

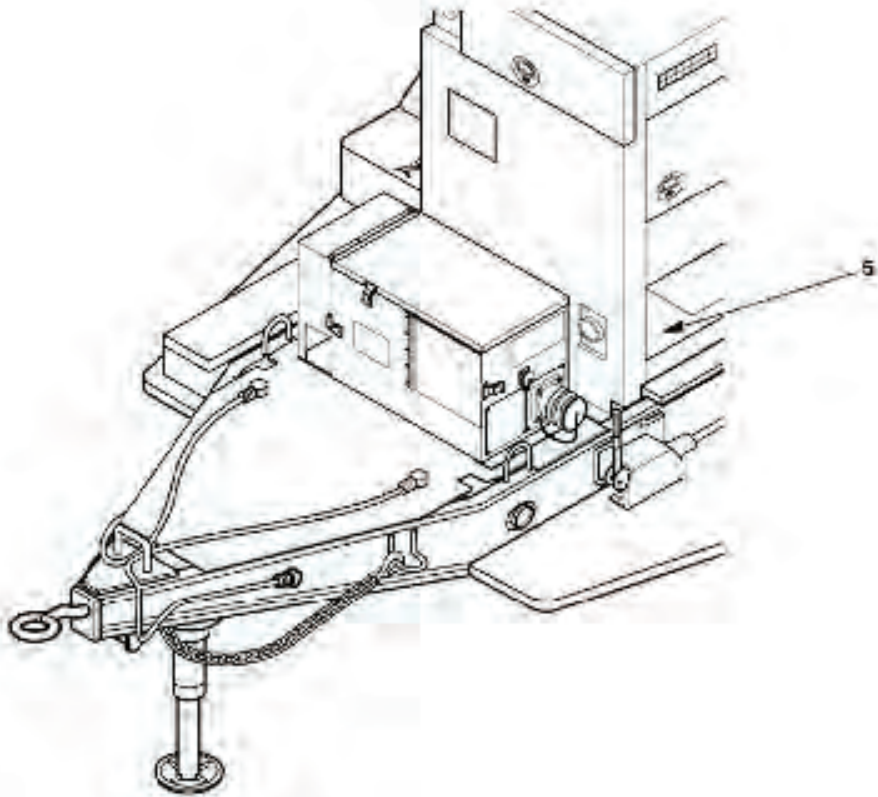
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
				
5	BEFORE	TIRES	a. Check tires (Item 6) for cuts, bruises, bulges, or unusual tread wear. Remove any foreign objects from between treads. b. Check tire pressure, when tires are cool, for 45 psi (248 kPa).	Tires are unserviceable. Tire will not hold air pressure.
6	BEFORE	WHEELS	a. Check wheels (Item 7) for damage and for leakage around flange gasket. b. Check to see if stud nuts (Item 8) are loose or missing.	Wheel has Class III leak at flange gasket. One stud nut is loose or missing.

Table 1. Field Preventive Maintenance Checks and Services. - Continued

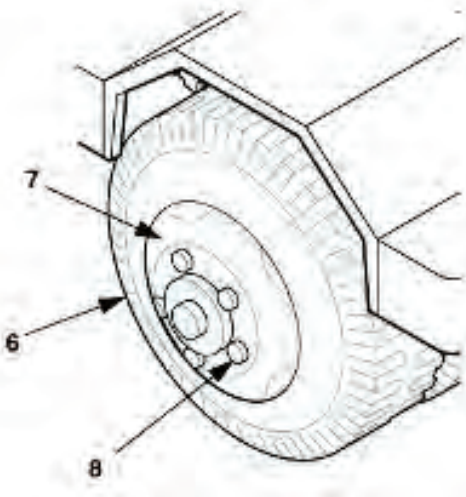
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
 WARNING Do not attempt to seat a lockring when tire is inflated. Improperly seated lockring could fly off. Failure to comply with this warning can cause injury to personnel.				
7	BEFORE	INTERVEHICULAR CABLE	a. Check inter-vehicular cable (Item 9) for cuts and breaks. b. Open cable protective cover. Inspect for broken, missing and burnt pins.	Cable is severed or missing.
8	BEFORE	AIR HOSE AND COUPLER	a. With trailer hooked to towing vehicle, check air hose (Item 10) for leaks, cuts, and abrasions. b. Check coupler body (Item 11) for damage. Check if seal (Item 12) is missing or damaged.	Air leaks are found, or cuts in hose are deep enough for cords to show. Coupler body is cracked or broken. Seal is missing.
NOTE An assistant is required while checking brake lights.				
9	BEFORE	LIGHTS	a. Check for obvious damage or looseness of lights and lenses. b. Connect the inter-vehicular cable (Item 9) to the towing vehicle. c. Operate the vehicle light switch through all settings, and check the lights.	Lights are damaged, not serviceable.

Table 1. Field Preventive Maintenance Checks and Services. - Continued

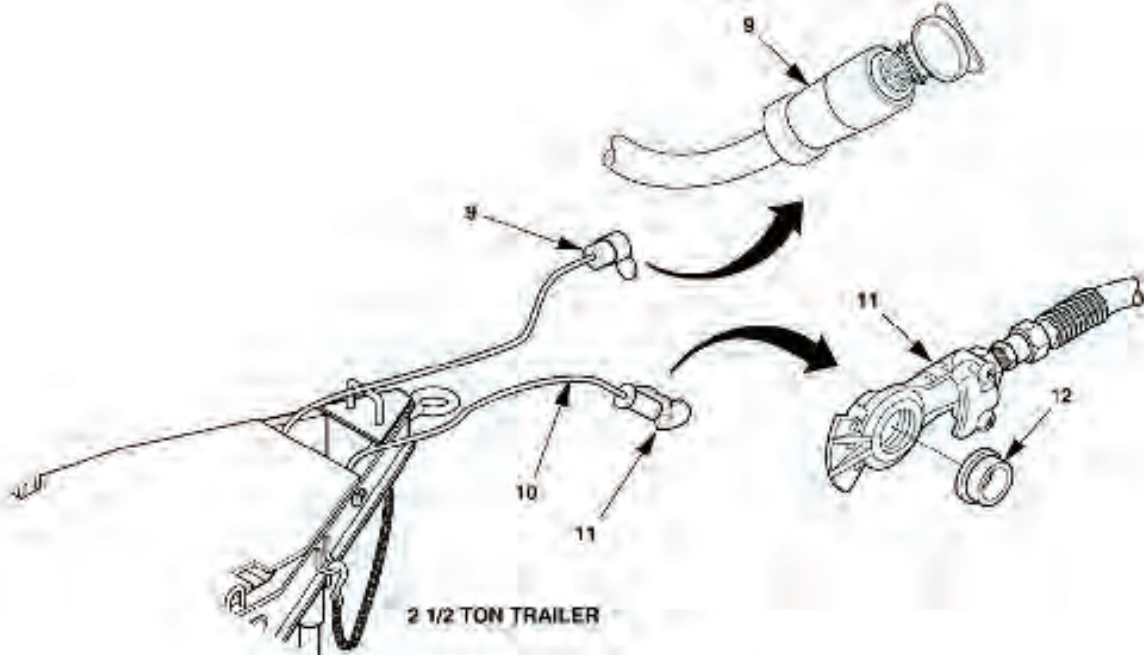
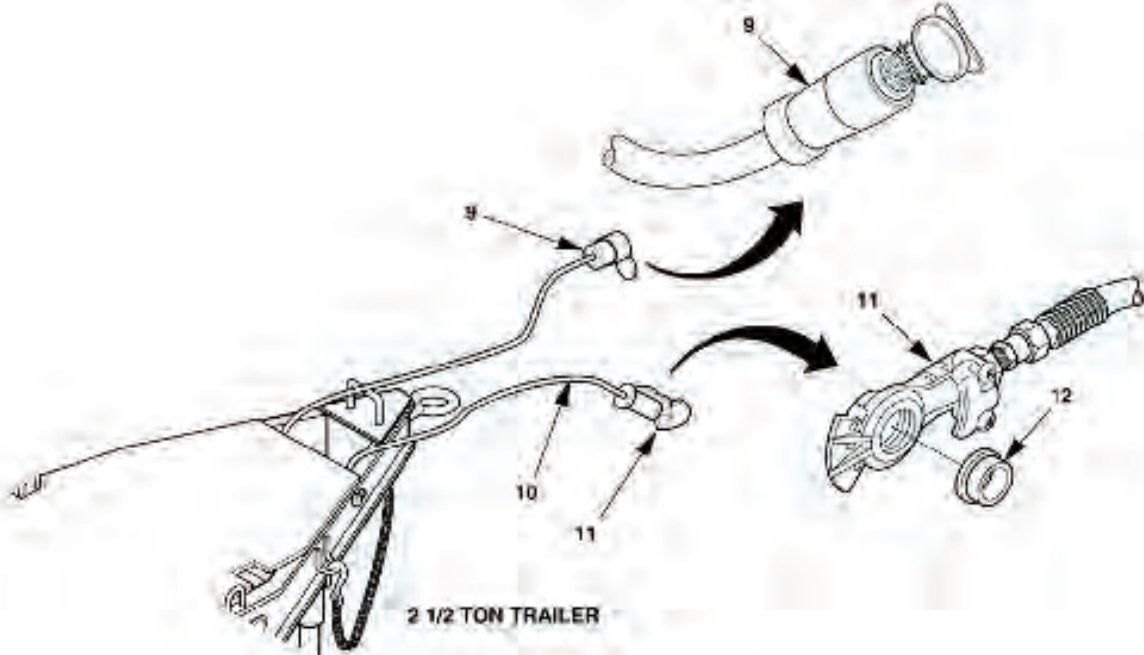
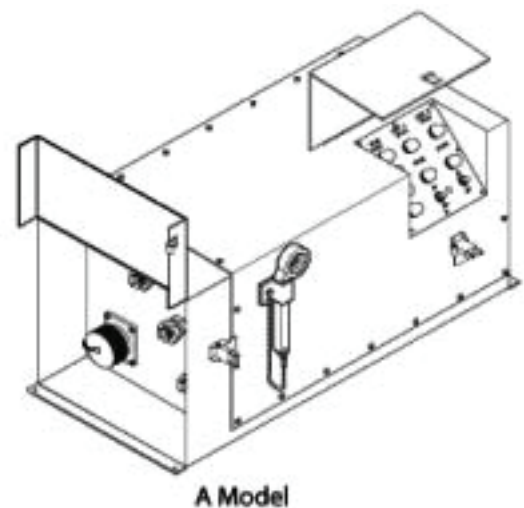
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
		 2 1/2 TON TRAILER		 A Model

Table 1. Field Preventive Maintenance Checks and Services. - Continued

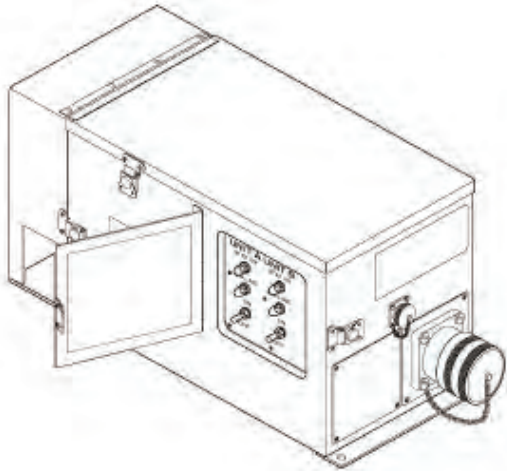
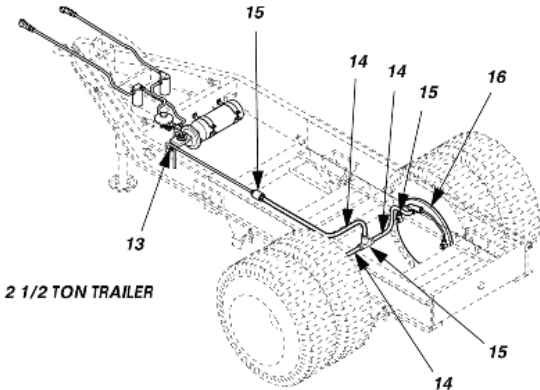
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
 B & C Model				
10	BEFORE	SWITCH BOX ASSEMBLY (POWER PLANT UNIT A ONLY)	Check for the following: - Loose or missing mounting hardware - Damaged indicator lights - Damaged or missing hinges and latches - Loose or damaged switches - Tightness of load terminals - Damaged or missing output terminals or connectors	Two or more mounting bolts missing. Indicator lights are damaged. Hinges missing or damaged. Switches loose or damaged. Load terminals loose. Damaged, loose or missing terminals or connectors will not secure load cables.
11	BEFORE	SERVICE BRAKE SYSTEM	- Check for leakage of brake fluid from master cylinder (Item 13). - Check for leakage of brake fluid from hydraulic brake lines (Item 14), fittings (Item 15), or at backing plates (Item 16).	Cable is broken or missing. Brake system has any leaks or brakes do not hold.
 2 1/2 TON TRAILER				

Table 1. Field Preventive Maintenance Checks and Services. - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
12	BEFORE	AIR RESERVOIR, LINES, AND FITTINGS	a. Check for damage and loose or missing parts. b. Ensure that drain cock (Item 17) is closed.	Hose is damaged or parts are loose or missing. Drain cock will not close.
WARNING Operating the generator set exposes personnel to a high noise level. Hearing protection must be worn when operating or working near the generator set when the generator set is running. Failure to comply with this warning can cause hearing damage to personnel. WARNING Fuels used in the generator set are flammable. When filling the fuel tank, maintain metal-to-metal contact between filler nozzle and fuel tank opening to eliminate static electrical discharge. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.				
		<u>GENERATOR SET</u>		
13	BEFORE	ACOUSTICAL MATERIALS	Ensure that acoustical materials, located in the grill areas, are secure, and not damaged or missing.	
14	BEFORE	ENGINE ASSEMBLY	a. Visually inspect the generator set for fuel, oil, and coolant leaks. Check for proper ground connections. b. Visually inspect the engine for missing, loose, or damaged parts and hardware, and for unusual wear or deterioration. c. DEAD CRANK switch to NORMAL.	Any fuel leaks. Any Class III oil or coolant leaks. Any condition that renders power unit/power plant not mission capable.
15	BEFORE	FUEL SYSTEM	Inspect Fuel Injector, Fuel Injector Line, Fuel Pump, And Fuel Line For Leaks, Damage, And Loose Or Missing Hardware.	Any fuel leaks, damage, or loose or missing parts.

Table 1. Field Preventive Maintenance Checks and Services. - Continued

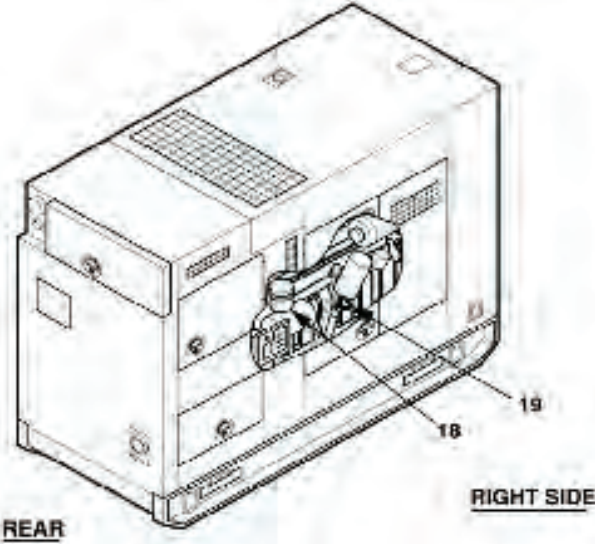
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
16	BEFORE	FUEL FILTER/WATER SEPARATOR	a. Inspect fuel filter/water separator (Item 18) for leaks, proper mounting, cracks, damage, or missing parts. b. Drain water from fuel filter/water separator (Item 18).	Any fuel leaks.
 The diagram shows a perspective view of the rear right side of a generator set. A fuel filter/water separator is labeled with the number 18. An oil level check point is labeled with the number 19. The words 'REAR' and 'RIGHT SIDE' are printed below the diagram.				
17	BEFORE	ETHER SYSTEM	Inspect for leaks and for damaged, loose or missing parts.	
18	BEFORE	LUBRICATION SYSTEM	a. Inspect lubrication system for leaks and for damaged, loose, or missing parts. b. Check oil level (Item 19). Add oil, as necessary. c. Check engine oil for contamination.	Class III leaks, or damaged, loose, or missing parts. Engine oil shows signs of contamination.
WARNING Cooling system operates at high temperature and pressure. Contact with high pressure steam and/or liquids can result in burns and scalding. Shut down generator set, and allow system to cool before performing checks, services and maintenance, or wear gloves and additional protective clothing and goggles as required. Failure to comply with this warning can cause injury or death to personnel.				
19	BEFORE	RADIATOR	Check radiator (Item 20) for leaks, damage, or missing parts.	Class III leaks. Radiator cap missing.
20	BEFORE	HOSES	Check hoses (Item 21) for leaks, cracks, or deterioration.	Class III leaks.
21	BEFORE	COOLING FAN	Check fan (Item 22) for damage or looseness.	Damaged or loose.
22	BEFORE	FAN BELT	Inspect belt (Item 23) for cracks, fraying, or looseness.	Broken or loose belt.

Table 1. Field Preventive Maintenance Checks and Services. - Continued

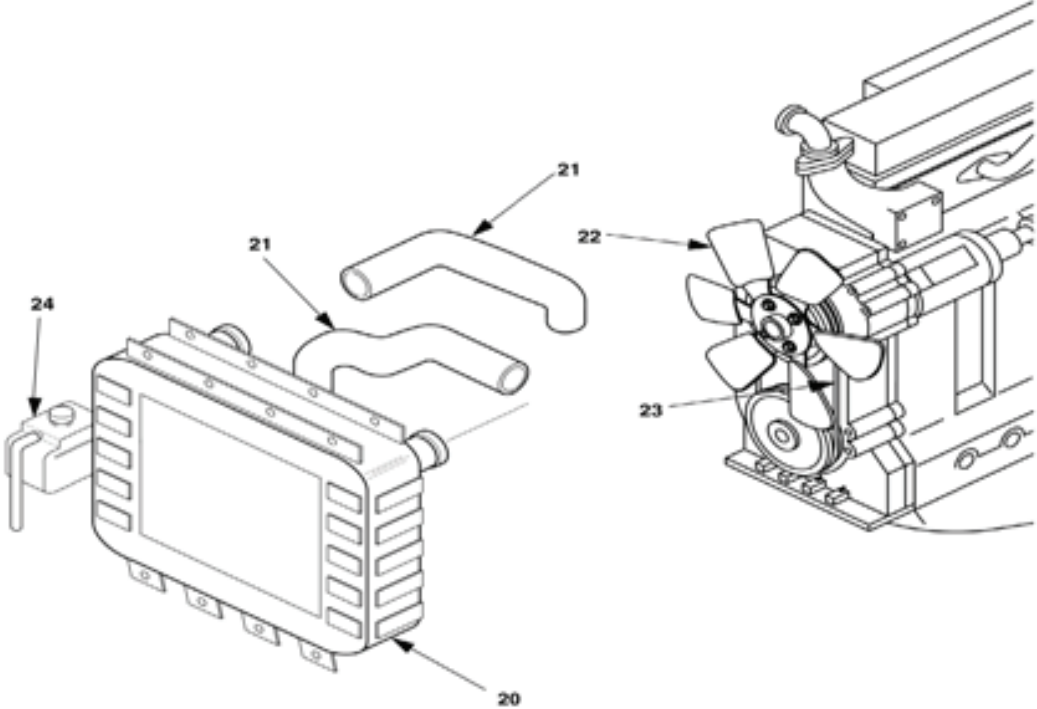
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
23	BEFORE	OVERFLOW BOTTLE	a. Check overflow bottle (Item 24) for leaks or missing parts. b. Check coolant level.	Class III leaks.
 The diagram illustrates the overflow bottle (Item 24) and the engine (Item 23). The overflow bottle is shown with its cap (24) and a hose (21) connected to the engine. The engine is shown with its fan (22) and a hose (23) connected to the overflow bottle. The diagram also shows a hose (20) connected to the engine.				
WARNING Exhaust discharge contains deadly gases including carbon monoxide. DO NOT operate generator set in enclosed areas unless exhaust discharge is properly vented outside. Failure to comply with this warning can cause injury or death to personnel.				
24	BEFORE	EXHAUST SYSTEM	Check muffler (Item 25) for evidence of leakage and exhaust system for corrosion, damage, or missing parts.	Muffler or exhaust system damaged or leaking.

Table 1. Field Preventive Maintenance Checks and Services. - Continued

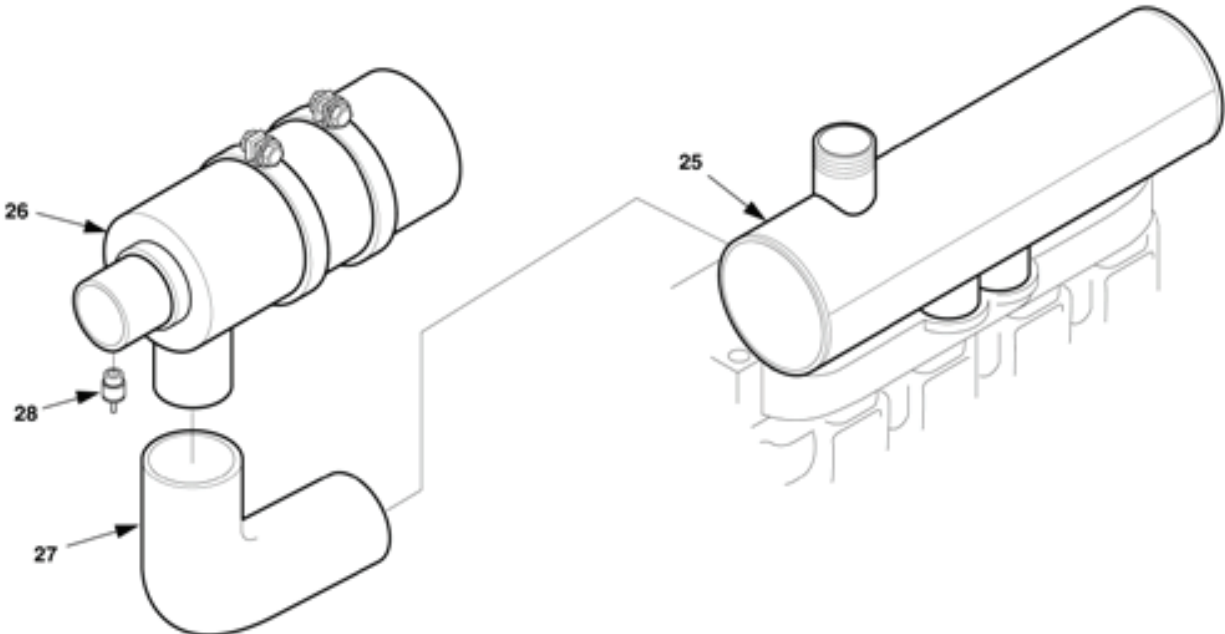
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
				
25	BEFORE	AIR CLEANER ASSEMBLY	a. Inspect air cleaner assembly (Item 26) and piping (Item 27) for loose or damaged connections. b. Inspect restriction indicator (Item 28) for clogged element. If indicator shows red, notify next higher level of maintenance.	Loose or damaged connections. Clogged element is indicated, or piping and connections are loose.
WARNING Battery acid can cause burns to unprotected skin. Wear safety goggles and chemical gloves and avoid acid splash while working on batteries. Failure to comply with this warning can cause injury to personnel. WARNING Batteries give off a flammable gas. Do not smoke or use open flame when performing maintenance. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.				
26	BEFORE	BATTERIES	a. Check batteries for damage or missing caps (front of generator in battery compartment). b. Inspect electrolyte level. If low, notify next higher maintenance level.	Batteries not charged.

Table 1. Field Preventive Maintenance Checks and Services. - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
WARNING High Voltage is produced when this generator set is in operation. Ensure engine control and DEAD CRANK switches are set to OFF, negative battery cable is disconnected, and unit is completely shut down and free of any power source before attempting any troubleshooting or maintenance on unit. Failure to comply may cause injury or death to personnel.				
27	BEFORE	BATTERY CABLES	Inspect cables and connectors for corrosion, damage, and loose or missing parts.	Cables are damaged or missing.
28	BEFORE	OUTPUT BOX ASSEMBLY	a. Check for loose or damaged wiring or cables. b. Check output terminals for damage or missing hardware.	Missing or damaged wiring or cables. Damaged or missing hardware.
29	BEFORE	CONTROLS AND INDICATORS	a. Check indicators and controls for damage or missing parts. b. Place PRIME & RUN switch to AUX PRIME & RUN and press TEST RESET LAMPS button on fault indicator. All test lamps must light. c. Check fuel gauge for fuel level.	Indicators or controls damaged or missing.
30	BEFORE	CONTROL BOX HARNESS	Check inside control box for loose or damaged wiring.	Loose or damaged wires.

Table 1. Field Preventive Maintenance Checks and Services. - Continued

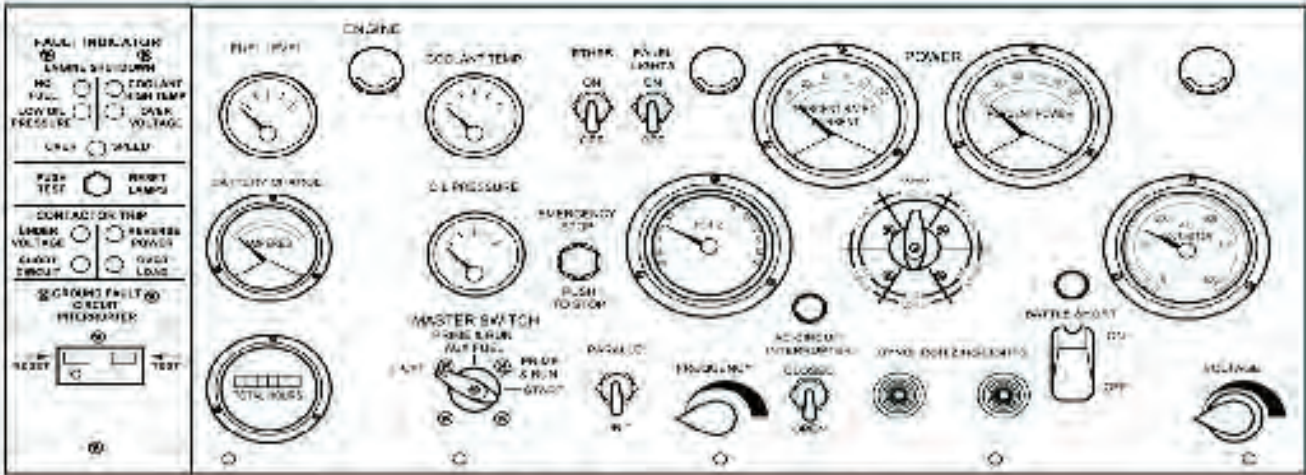
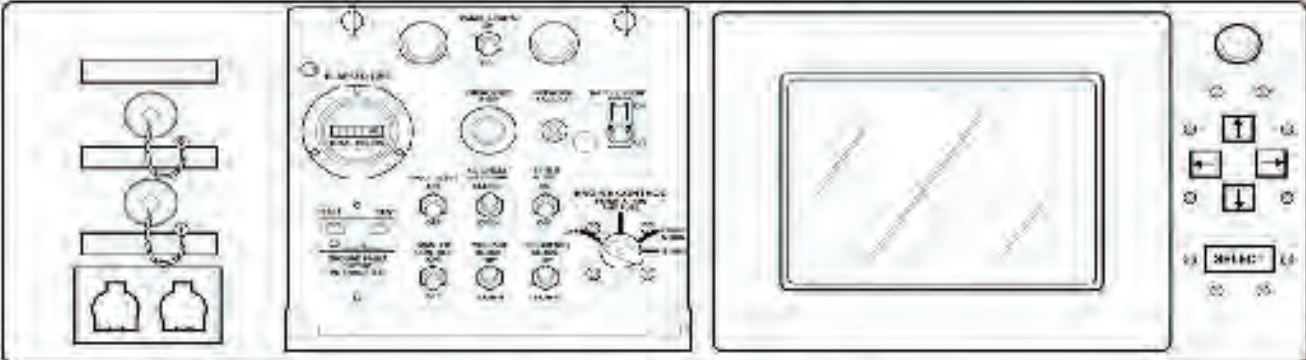
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
 Analog Control Panel  Digital Control Panel				
WARNING High voltage is produced when the generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator set, switch box or cables, unless specifically directed otherwise in the troubleshooting procedures. Failure to comply with this warning can cause injury or death to personnel.				
31	BEFORE	GROUND ROD CABLE AND CONNECTIONS	Inspect ground rod and cable for loose connections, breaks, damage, and corrosion.	Cable is missing or damaged.
32	BEFORE	INPUT LOAD AND PARALLELING CABLES	Ensure cables are properly Inspect for damage and cutting.	Cables are improperly installed, or damaged.
33	BEFORE	OUTPUT CONNECTORS	Inspect output connectors for missing hardware or damage.	Output connectors are missing hardware or damaged.
		TRAILER		

Table 1. Field Preventive Maintenance Checks and Services. - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
34	DURING	TRAILER OPERATION	a. Be alert for unusual noises when towing the trailer. Stop and investigate such noises. b. Ensure that the trailer is tracking/ following correctly behind towing vehicle with no side pull.	Brakes locked up.
35	DURING	SWITCH BOX ASSEMBLY	Check indicator Ensure indicator lights are operating properly.	
36	DURING	HOUSING	a. Check doors, hinges, and latches for damage, and loose or corroded items. b. Inspect air intake and exhaust grills for debris.	Cannot secure door. Grills plugged; air flow cut off.
<u>GENERATOR SET</u> WARNING Operating the generator set exposes personnel to a high noise level. Hearing protection must be worn when operating or working near the generator set when the generator set is running. Failure to comply with this warning can cause hearing damage to personnel. WARNING Fuels used in the generator set are flammable. Do not smoke or use open flames when performing maintenance. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set. WARNING Top housing panels and exhaust system can get very hot. When performing DURING PMCS, wear gloves and additional protective clothing as required. Failure to comply with this warning can cause severe burns and injury to personnel. WARNING Exercise extreme caution when performing DURING PMCS checks inside engine compartment. Avoid contact with moving or hot engine parts. Failure to comply with this warning can cause injury or death to personnel.				
37	DURING	ENGINE ASSEMBLY	Check for loose, damaged, or missing parts.	
38	DURING	FUEL SYSTEM	Inspect for leaks.	Any fuel leaks.
39	DURING	LUBRICATION SYSTEM	a. Inspect for leaks. b. Check oil level on dipstick, both sides.	Class III leaks. Oil level below ADD level.

Table 1. Field Preventive Maintenance Checks and Services. - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
WARNING High Voltage is produced when this generator set is in operation. Ensure engine control and DEAD CRANK switches are set to OFF, negative battery cable is disconnected, and unit is completely shut down and free of any power source before attempting any troubleshooting or maintenance on unit. Failure to comply may cause injury or death to personnel. WARNING Top housing panels and exhaust system can get very hot. When performing DURING PMCS, wear gloves and additional protective clothing as required. Failure to comply with this warning can cause severe burns and injury to personnel.				
40	DURING	COOLING FAN	Listen for unusual noise in fan area.	
41	DURING	GROUND ROD CABLE AND CONNECTIONS	Inspect ground rod and cable for loose connections, breaks, damage, and corrosion.	Cable is missing or damaged.
42	DURING	CONTROLS AND INDICATORS	Observe the following indicators and ensure they are functioning: • Coolant temp, 170-200 °F (77-93 °C) • Oil pressure, 25-60 psi (172-414 kPA)	
43	AFTER	HOUSING	a. Check doors, panels, hinges, and latches for damage, and loose or corroded items. b. Inspect air intake and exhaust grills for debris.	Cannot secure doors. Intake and exhaust grills plugged.
44	AFTER	IDENTIFICATION PLATES	Check to be sure identification plates are secure.	
45	AFTER	SKID BASE	Inspect skid base for cracks and corrosion.	Skid base cracked or shows signs of structural damage.
WARNING Fuels used in the generator set are flammable. Do not smoke or use open flames when performing maintenance. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set. WARNING Diesel fuel is flammable and toxic to eyes, skin, and respiratory tract. Skin and eye protection are required when working in contact with diesel fuel. Avoid repeated or prolonged contact. Provide adequate ventilation. Operators are to wash exposed skin and change chemical soaked clothing promptly if exposed to fuel. Failure to comply with this warning can cause injury or death to personnel.				
46	AFTER	ENGINE ASSEMBLY	Check for loose, damaged, or missing hardware.	

Table 1. Field Preventive Maintenance Checks and Services. - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
47	AFTER	FUEL SYSTEM	Inspect fuel system for leaks, and damaged, loose, or missing hardware.	Any fuel leaks, or damaged, loose, or missing parts.
48	AFTER	FUEL FILTER/ WATER SEPARATOR	a. Inspect fuel filter/water separator for leaks, cracks, damage, proper mounting, or missing parts. b. Drain water from fuel filter/water separator.	Any fuel leaks.
49	AFTER	LUBRICATION SYSTEM	a. Inspect lubrication system for leaks, and damaged, loose, or missing parts. b. Check oil level. c. Check engine oil for contamination.	Class III leaks, damaged, loose, or missing parts. Oil level is below ADD level. Engine oil shows contamination.
		<u>COOLING SYSTEM</u>		
WARNING Cooling system operates at high temperature and pressure. Contact with high pressure steam and/or liquids can result in burns and scalding. Shut down generator set, and allow system to cool before performing checks, services and maintenance, or wear gloves and additional protective clothing and goggles as required. Failure to comply with this warning can cause injury or death to personnel.				
50	AFTER	RADIATOR	Check radiator for leaks, damage, or missing parts.	Class III leaks. Radiator cap missing.
51	AFTER	HOSES	Check hoses for leaks or cracks.	Class III leaks.
52	AFTER	FAN BELT	Inspect belt for cracks, fraying, or looseness.	Broken belt.
53	AFTER	OVERFLOW BOTTLE	Check overflow bottle for leaks or missing. Check coolant level.	Class III leaks. Coolant level is below COLD line.
		<u>CONTROL BOX ASSEMBLY</u>		
54	AFTER	CONTROLS AND INDICATORS	Check all indicators and controls for damaged or missing parts.	Indicators or controls damaged or missing.

MANDATORY REPLACEMENT PARTS LIST

There are no replacement parts required for these PMCS procedures.

END OF WORK PACKAGE

OPERATOR MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT**

OPERATOR MAINTENANCE

INITIAL SETUP:**Materials/Parts**

Rag, Wiping (WP 0115, Table 1, Item 7)

Personnel RequiredOperator (1)
91D Assistant (1)**Equipment Condition**Ground IAW (WP 0005)
Engine control master switch in OFF position (WP 0005)**References**Description and Use of Operator Controls and Indicators (WP 0004)
Operation Under Unusual Conditions (WP 0006)
Operator Troubleshooting Procedures (WP 0008)
Indicator Lamp and/or Lens Replacement (WP 0012)
Attaching Connector P1 to Unit A (WP 0013)

OPERATOR MAINTENANCE**NOTE**

When referring to TM 9-2330-205-14&P, make sure that the proper trailer chassis configuration is known.

Refer to TM 9-6115-645-10 and TM 9-6115-672-14 for generator set maintenance instructions; refer to TM 9-2330-205-14&P for trailer maintenance instructions. The operation maintenance functions for the power units/power plants are provided in WP 0012 and WP 0013.

END OF WORK PACKAGE

OPERATOR MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
INDICATOR LAMP AND/OR LENS REPLACEMENT**

INITIAL SETUP:**Equipment Condition**

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

Trailer support devices are lowered. Refer to "Positioning Power Unit/Power Plant" located in WP 0005.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

1. Release clamping catch (Figure 1, Item 7) and open control panel access cover (Figure 1, Item 3).
2. Grip and unscrew lens cap (Figure 1, Item 1).
3. Remove lamp (Figure 1, Item 2) by grasping the base and pulling outward.

END OF TASK**INSTALLATION**

1. Insert lamp (Figure 1, Item 2) into lens cap (Figure 1, Item 1) and push inward.
2. Install lens cap (Figure 1, Item 1) with lamp (Figure 1, Item 2) by threading lens cap (Figure 1, Item 1) into housing. Tighten lens cap (Figure 1, Item 1) firmly.
3. Close control panel access cover (Figure 1, Item 3) and secure clamping catch (Figure 1, Item 7).

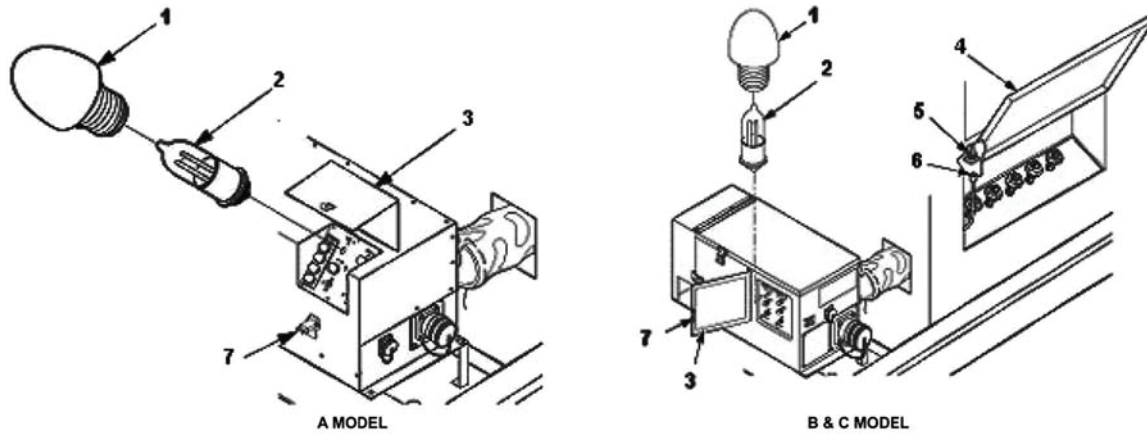


Figure 1. Indicator Lamps and P1 Connector Maintenance.

END OF TASK

END OF WORK PACKAGE

OPERATOR MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****ATTACHING CONNECTOR P1 TO UNIT A**

INITIAL SETUP:**References**

Indicator Lamp and/or Lens Replacement (WP 0012)

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

Trailer support devices are lowered. Refer to "Positioning Power Unit/Power Plant" located in WP 0005.

INSTALLATION

1. Open access panel (WP 0012, Figure 1, Item 4) to Unit A generator load terminals.
2. Attach connector P1 (WP 0012, Figure 1, Item 6) to J16 (WP 0012, Figure 1, Item 5) inside generator set.

END OF TASK**END OF WORK PACKAGE**

CHAPTER 5

FIELD TROUBLESHOOTING PROCEDURES

FOR

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER

UNITS AND POWER PLANTS

CHAPTER 5

FIELD TROUBLESHOOTING PROCEDURES

WORK PACKAGE INDEX

<u>Title</u>	<u>WP Sequence No.</u>
Field Troubleshooting Index	0014
Field Troubleshooting Procedures.....	0015

FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

FIELD TROUBLESHOOTING INDEX

GENERAL

Refer to TM 9-6115-645-24 and TM 9-6115-672-14 for generator set troubleshooting procedures and to TM 9-2815-256-24 and TM 9-2815-260-24 for engine troubleshooting procedures. Refer to TM 9-2330-205-14&P for trailer troubleshooting procedures. The symptom index for the power plant lists faults associated with switch box operation. Figure 1 through Figure 18 provide an OK - NOT OK flowchart of each malfunction. Each malfunction listed includes a reference to the applicable figure that contains a chart to help you determine probable causes and corrective actions to take. The symptom index cannot list all faults that may occur, nor all the tests or inspections and corrective actions. If a malfunction is not listed or cannot be corrected by listed corrective actions, notify next higher level of maintenance for assistance.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator set, switch box or cables, unless specifically directed otherwise in the troubleshooting procedures. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The troubleshooting charts cover all three versions of the switch boxes, A, B, and C.

NOTE

Verify the problem is resolved after performing each corrective action.

Malfunction/Symptom**Troubleshooting
Procedure**

Indicator lamp is good but does not light	0015-1
Unit A has no power	0015-2
Unit B has no power	0015-3
Power is absent at all switch box load terminals	0015-4
Cables are connected properly, but unit fails to parallel through switch box	0015-5
Unit A STATUS lamp does not light with generator set AC CIRCUIT INTERRUPTER switch closed (A Model)	0015-6
Unit A STATUS lamp does not light with generator set AC CIRCUIT INTERRUPTER switch	0015-7

TROUBLESHOOTING INDEX - Continued

<u>Malfunction/Symptom</u>	<u>Troubleshooting Procedure</u>
closed (B & C Models)	
Unit A has no input power to K1	0015-8
Unit A has no output power from K1(A Model)	0015-9
Unit A has no output power from K1 (B & C Models)	0015-10
Unit A has output power from K1 but no output at one or more load terminals	0015-11
Unit B STATUS lamp does not light with generator set AC CIRCUIT INTERRUPTER switch closed (A Model)	0015-12
Unit B STATUS lamp does not light with generator set AC CIRCUIT INTERRUPTER switch closed (B & C Models)	0015-13
Unit B has no input power to K2	0015-14
Unit B has no output power from K2 (A Model)	0015-15
Unit B has no output power from K2 (B & C Models)	0015-16
Unit B has output power from K2 but no output at one or more load terminals	0015-17
Power cable W19 and paralleling cable are good, but unit fails to parallel through switch box	0015-18

END OF WORK PACKAGE

FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

FIELD TROUBLESHOOTING PROCEDURES

INITIAL SETUP:

Test Equipment

Multimeter, (WP 0112, Item 3)

Tools and Special Tools

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

Personnel Required

Operator (1)
91D Assistant (1)

Equipment Condition

Ground IAW (WP 0005)
Engine control master switch in OFF position (WP 0005)

References

Description and Use of Operator Controls and Indicators (WP 0004)
 Operation Under Usual Conditions (WP 0005)
 Operation Under Unusual Conditions (WP 0006)
 Operator Troubleshooting Procedures (WP 0008)
 Indicator Lamp and/or Lens Replacement (WP 0012)
 Attaching Connector P1 to Unit A (WP 0013)
 Power Cable W19 (WP 0020)
 Switch Box Assembly (A Model) (WP 0021)
 Switch Box Assembly (B & C Models) (WP 0022)
 Switch Box Toggle Switch (A, B, & C Models) (WP 0027)
 Indicator Light (A, B, & C Models) (WP 0028)
 Switch Box Assembly (A, B, & C Models)(WP 0038)

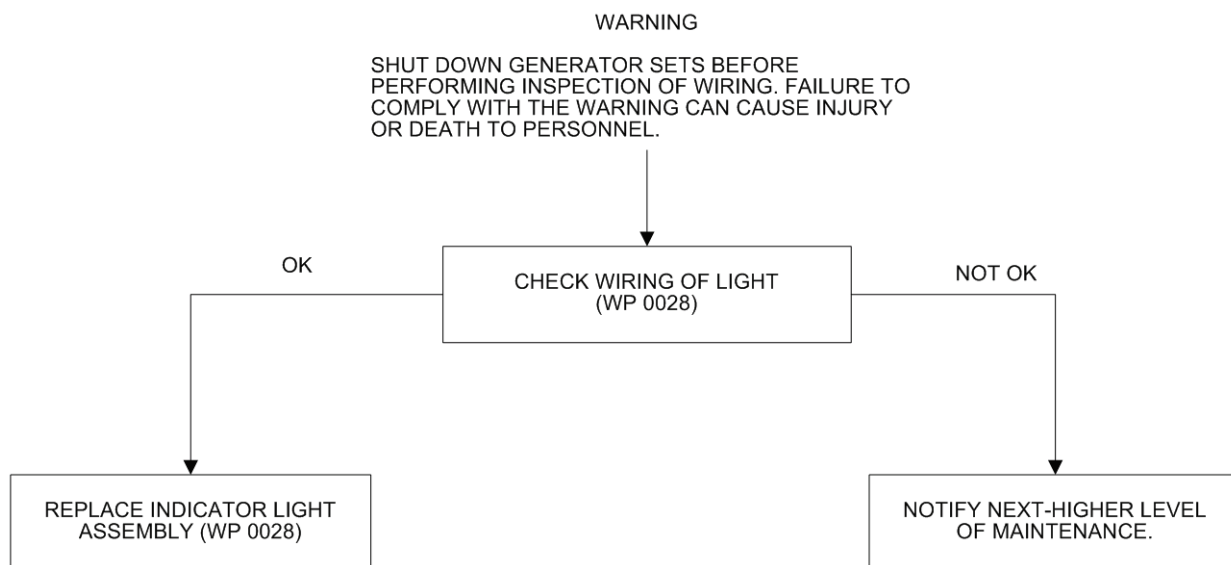


Figure 1. Indicator Lamp Is Good But Does Not Light.

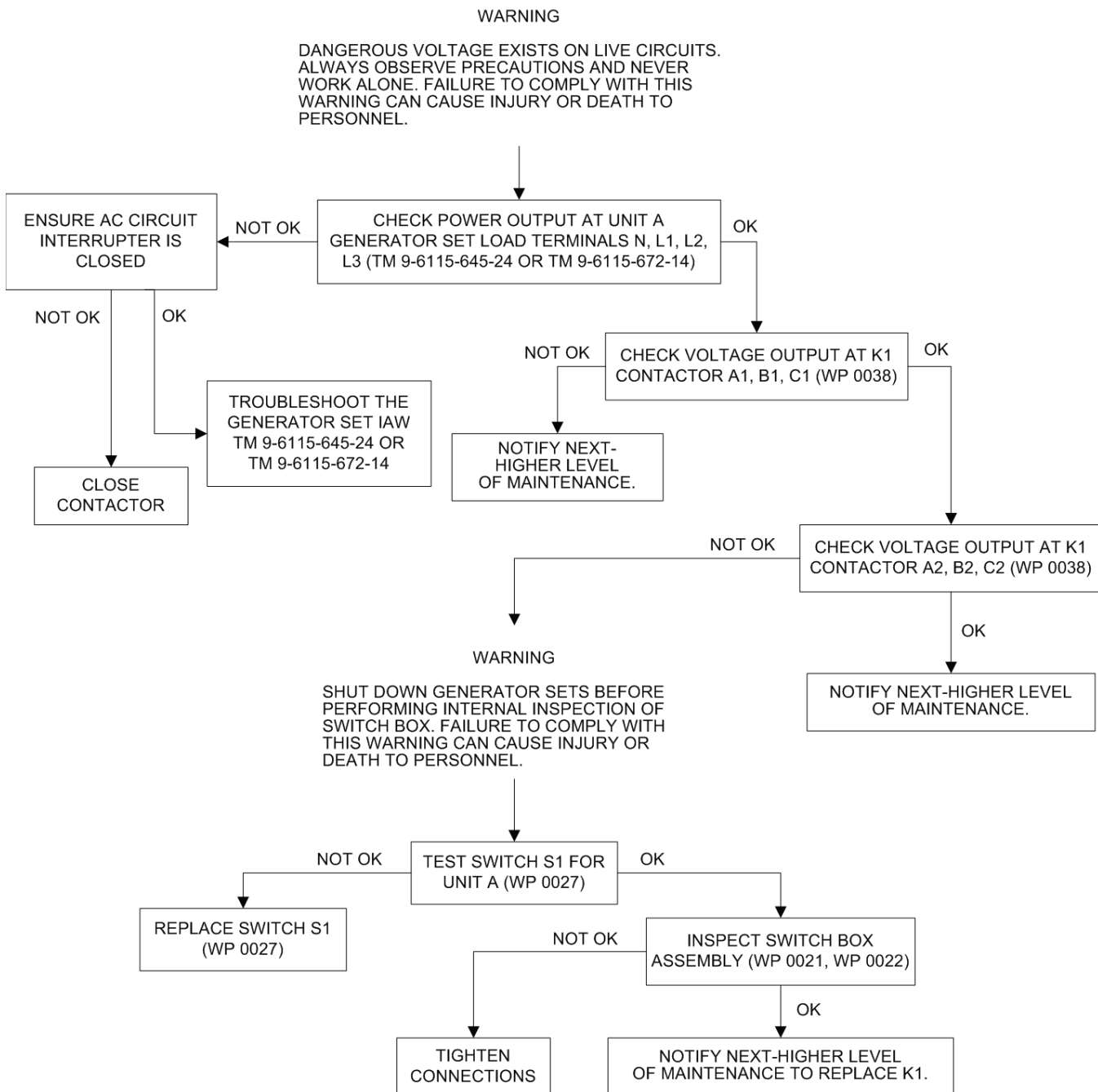


Figure 2. Unit A Has No Power.

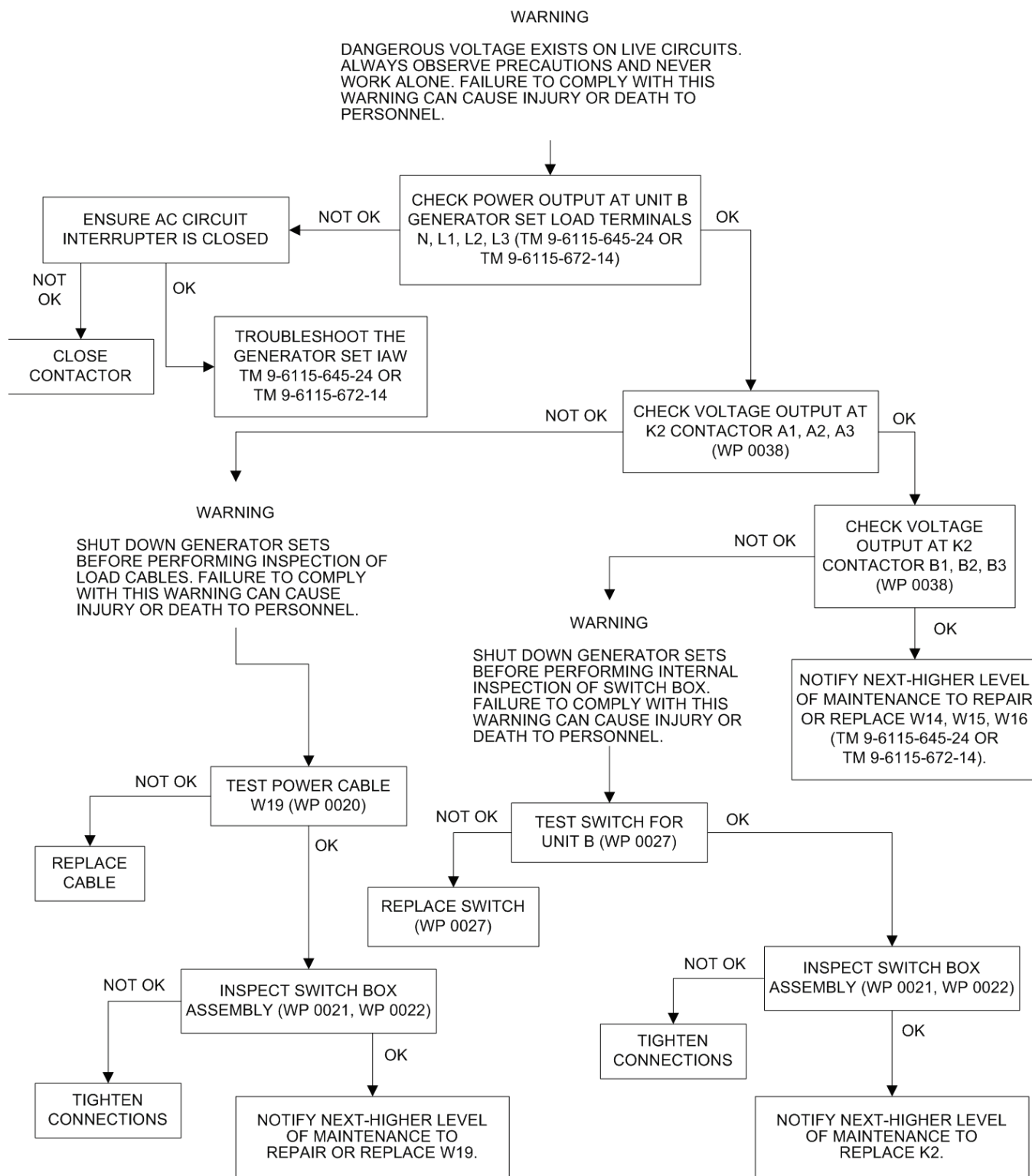
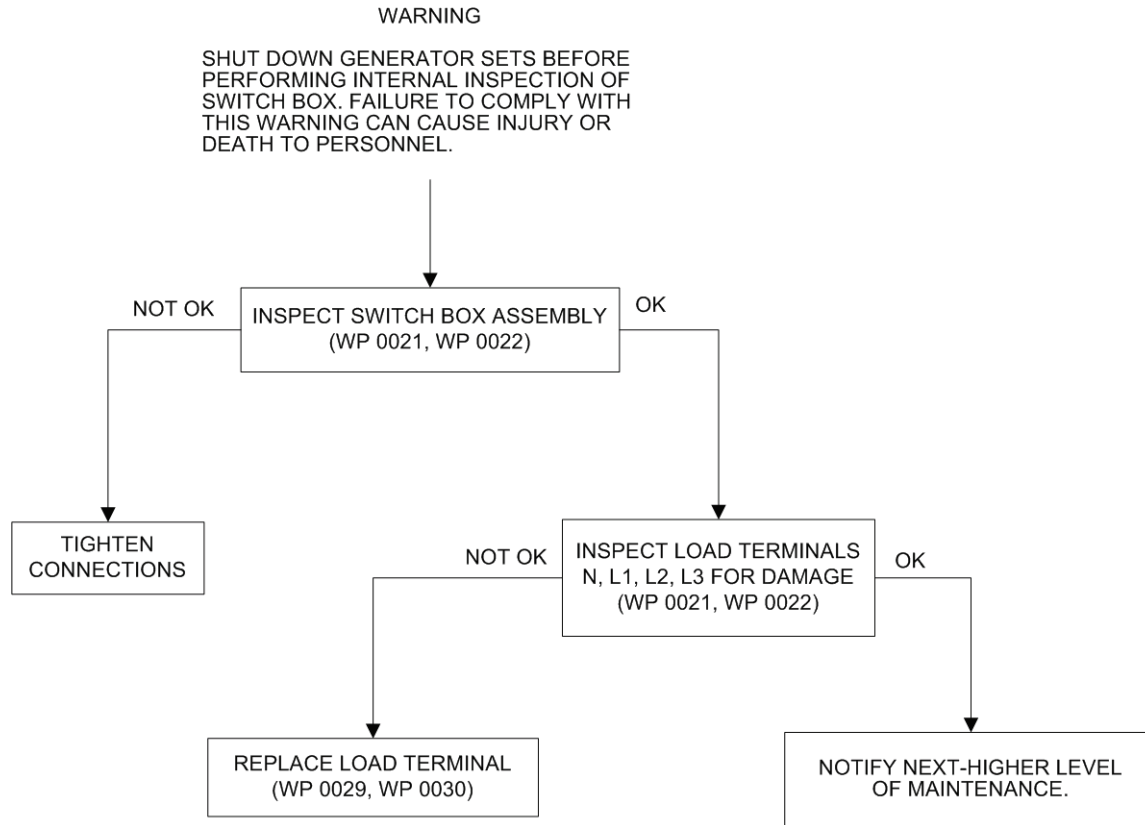


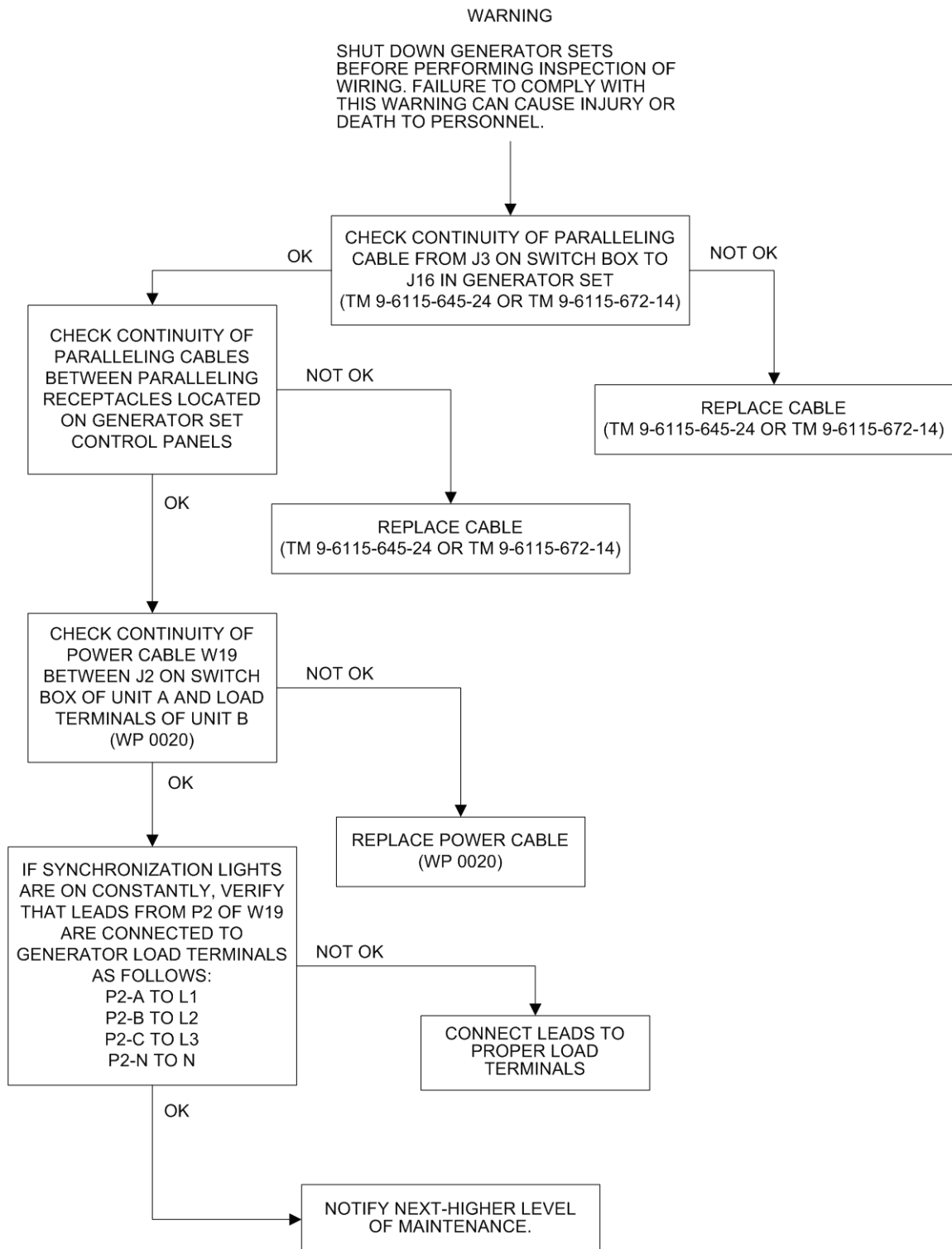
Figure 3. Unit B Has No Power.



NOTE

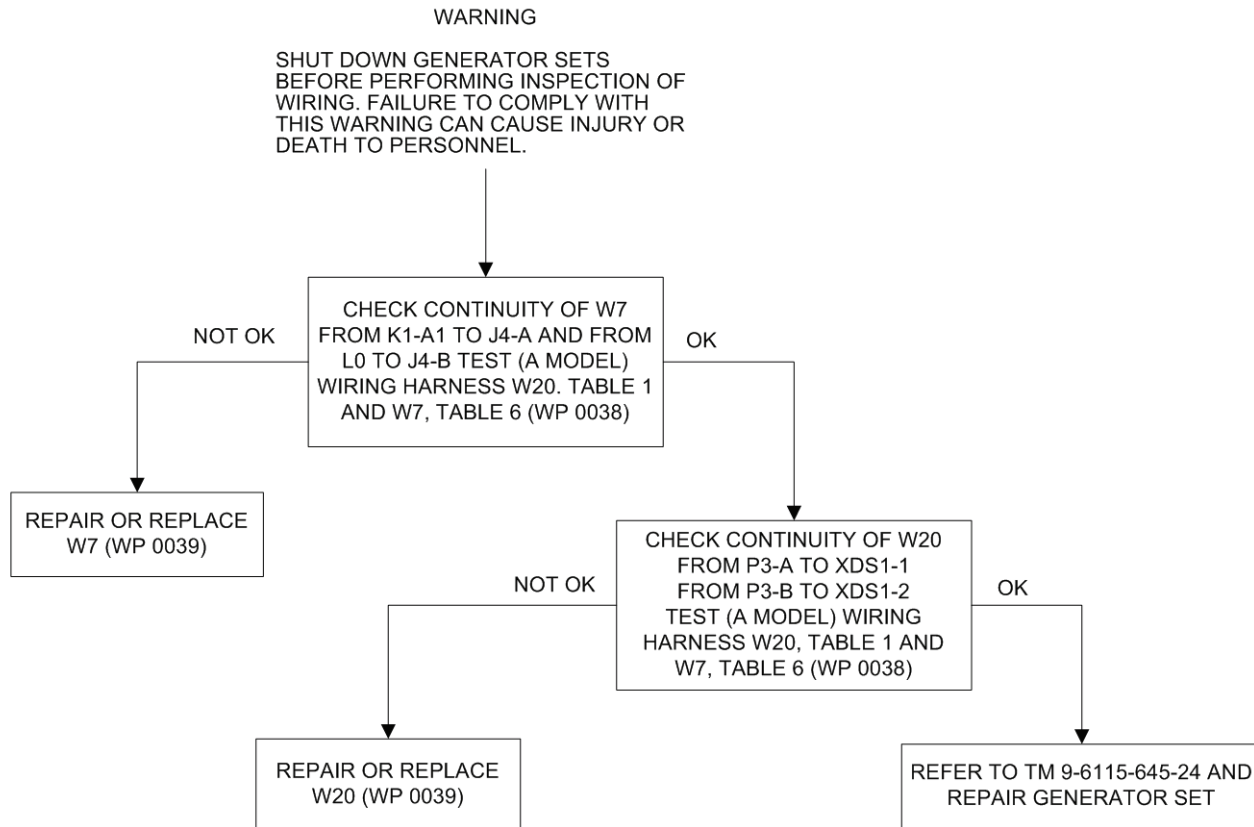
ON PREVIOUS MODEL SWITCH BOXES, LOAD TERMINAL N IS DESIGNATED L0.

Figure 4. Power Is Absent at All Switch Box Load Terminals.

**NOTE**

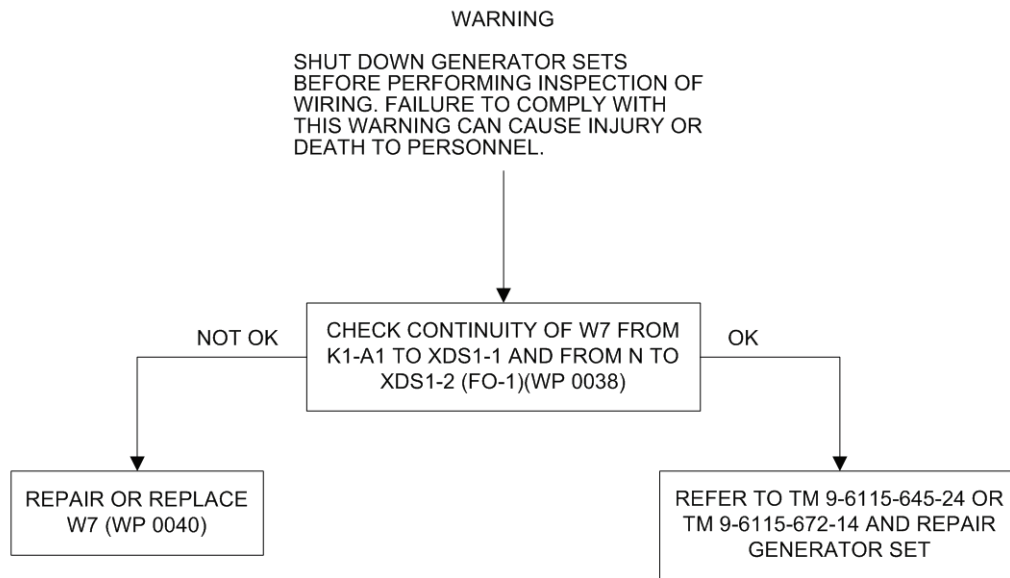
ON PREVIOUS MODEL SWITCH BOXES, LOAD TERMINAL N IS DESIGNATED L0.

Figure 5. Cables Are Connected Properly, But Unit Fails to Parallel Through Switch Box.

**NOTE**

LOAD TERMINAL NEUTRAL IS DESIGNATED L0. THIS TROUBLESHOOTING CHART COVERS THE A MODEL OF THE SWITCH BOX.

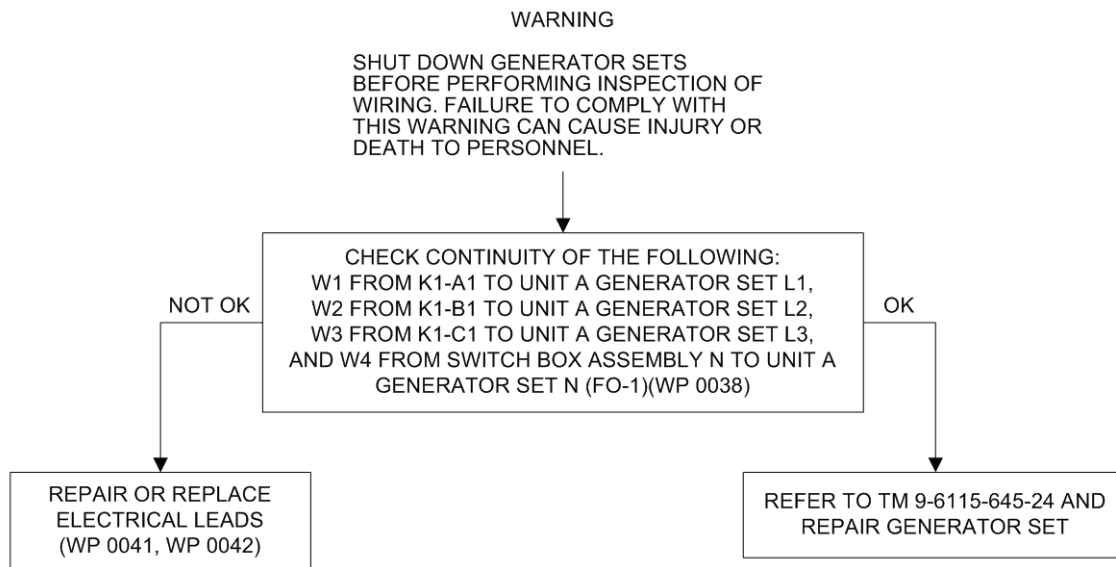
Figure 6. Unit A STATUS Lamp Does Not Light With Generator Set AC CIRCUIT INTERRUPTER Switch Closed (A Model).



NOTE

ON PREVIOUS MODEL SWITCH BOXES, LOAD TERMINAL N IS DESIGNATED L0. THIS
TROUBLESHOOTING CHART COVERS THE B & C MODELS OF THE SWITCH BOX.

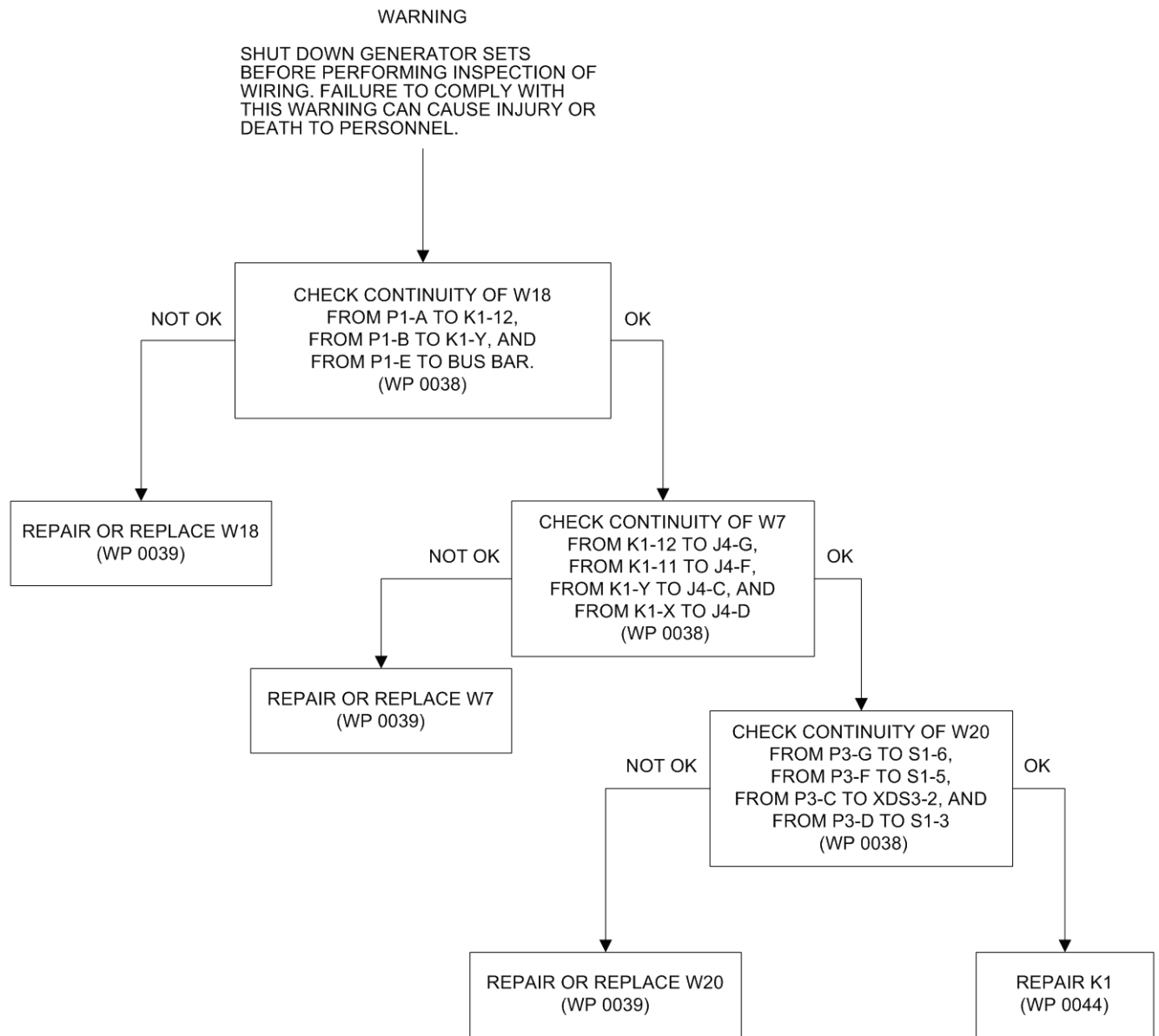
Figure 7. Unit A STATUS Lamp Does Not Light With Generator Set AC CIRCUIT INTERRUPTER Switch Closed (B & C Models).



NOTE

ON PREVIOUS MODEL SWITCH BOXES, LOAD TERMINAL N IS DESIGNATED L0. THIS
TROUBLESHOOTING CHART COVERS A, B, & C MODELS OF THE SWITCH BOX.

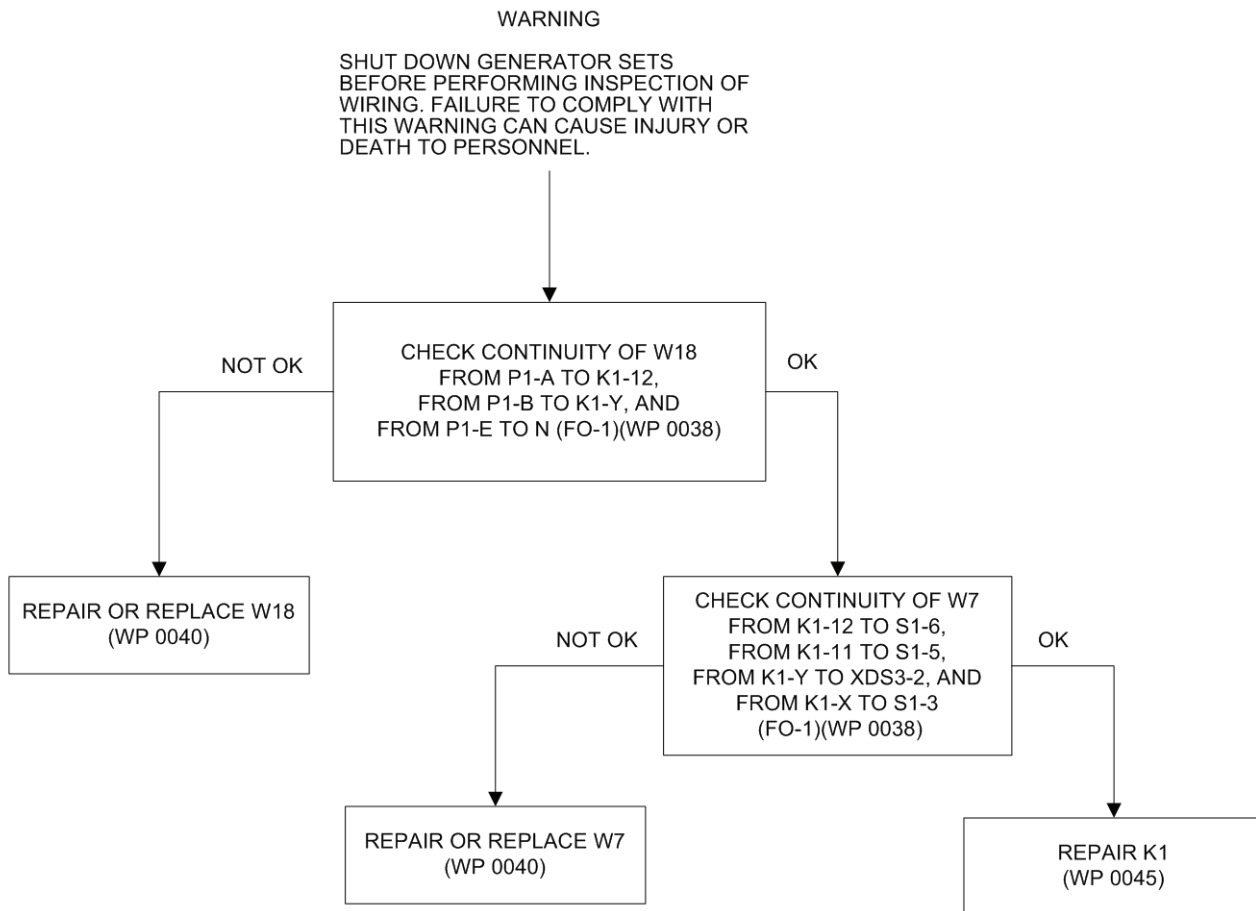
Figure 8. Unit A Has No Input Power to K1.



NOTE

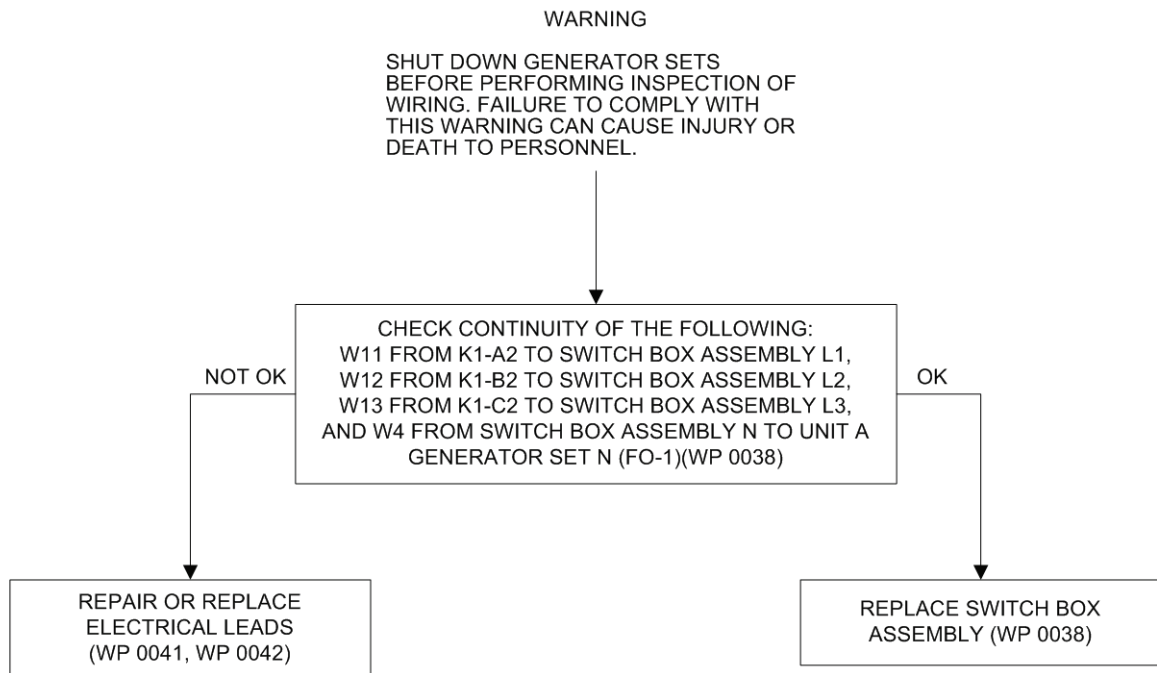
THIS TROUBLESHOOTING CHART COVERS THE A MODEL OF THE SWITCH BOX.

Figure 9. Unit A Has No Output Power from K1 (A Model).

**NOTE**

THIS TROUBLESHOOTING CHART COVERS THE B & C MODELS OF THE SWITCH BOX.

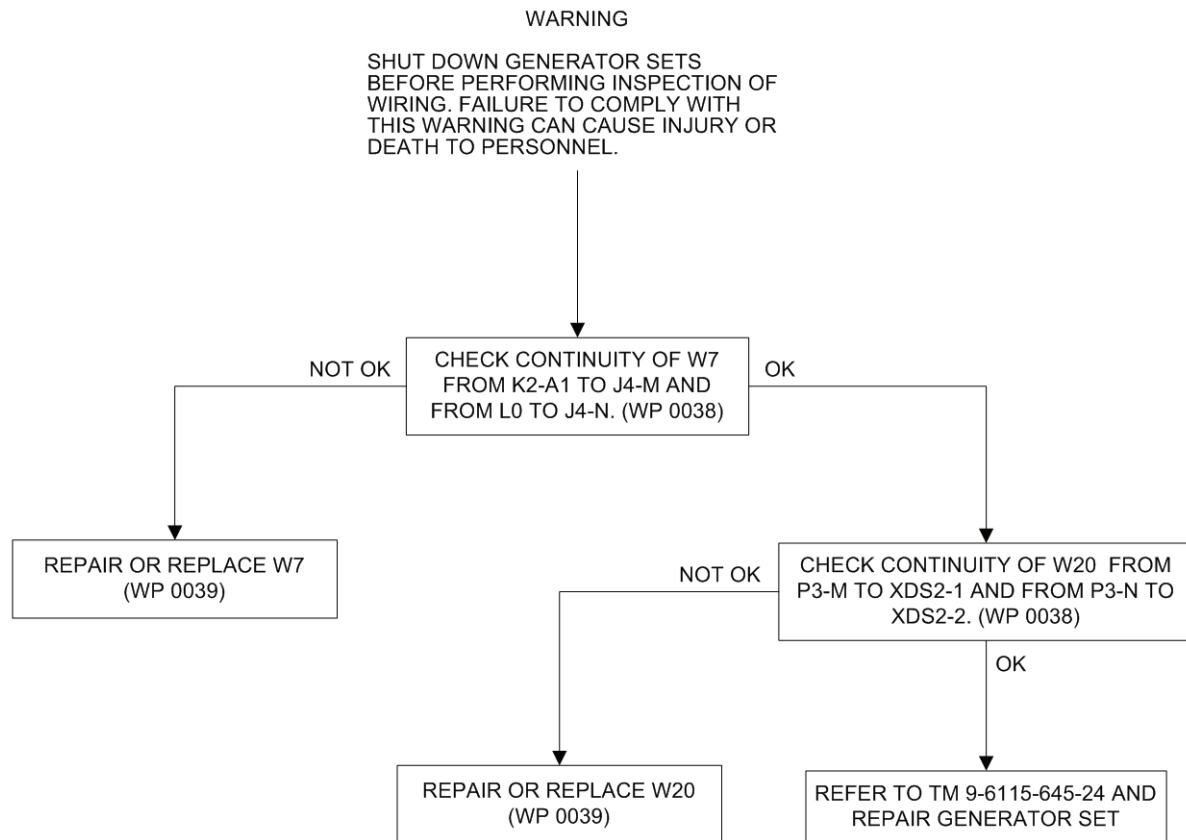
Figure 10. Unit A Has No Output Power from K1 (B & C Models).



NOTE

ON PREVIOUS MODEL SWITCH BOXES, LOAD TERMINAL N WAS DESIGNATED L0. THIS
TROUBLESHOOTING CHART COVERS A, B, & C MODELS OF THE SWITCH BOX.

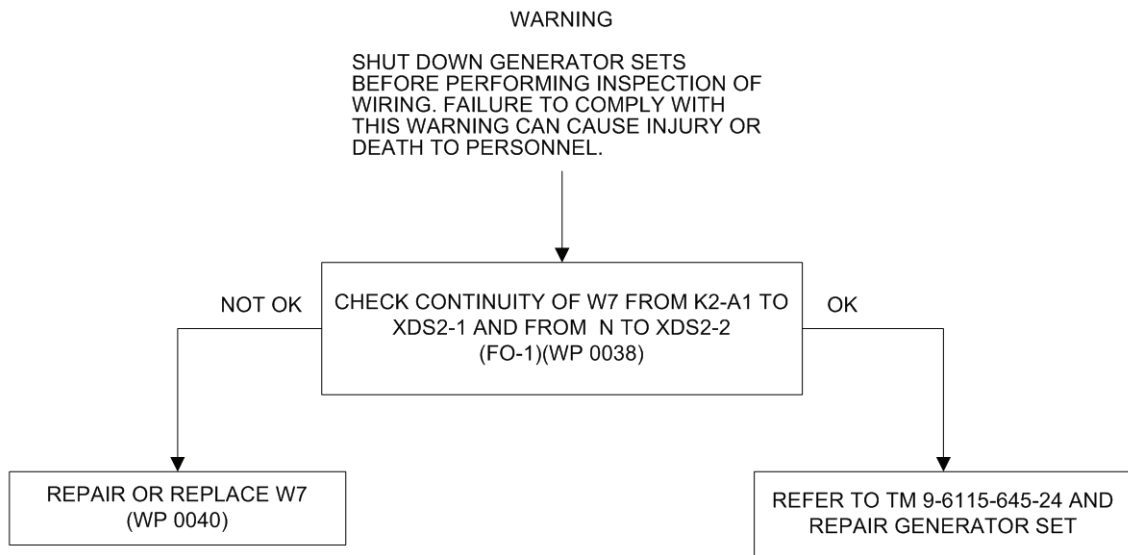
Figure 11. Unit A Has Output Power from K1 But No Output at One or More Load Terminals.



NOTE

THIS TROUBLESHOOTING CHART COVERS THE A MODEL OF THE SWITCH BOX.

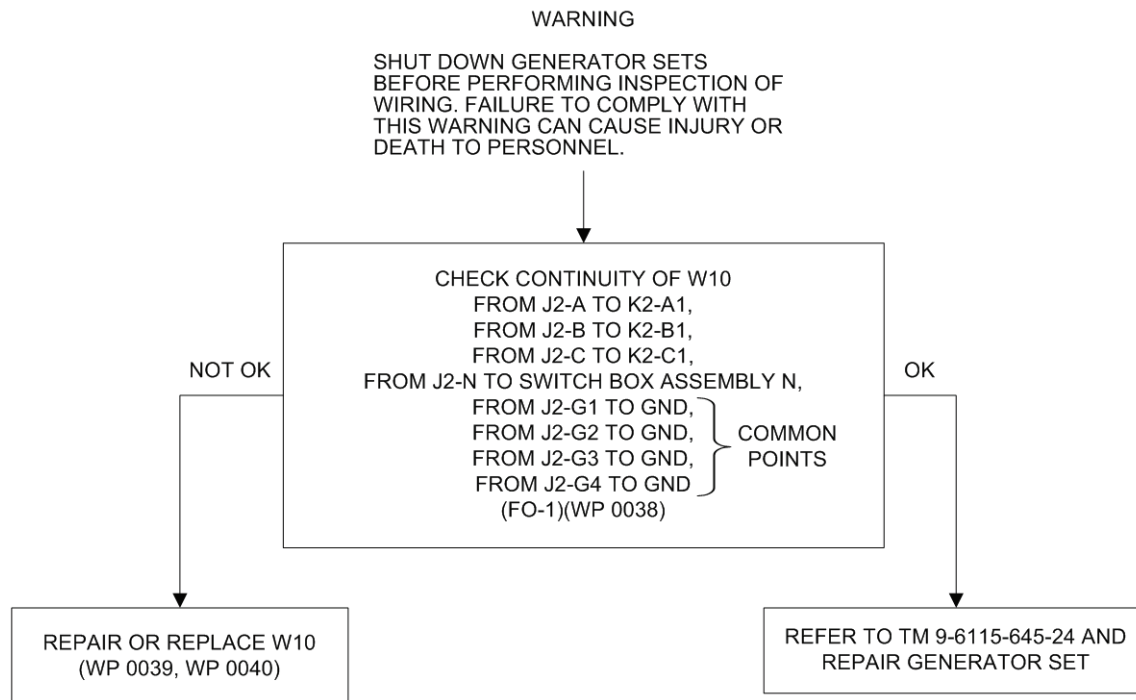
Figure 12. Unit B STATUS Lamp Does Not Light With Generator Set AC CIRCUIT INTERRUPTER Switch Closed (A Model).

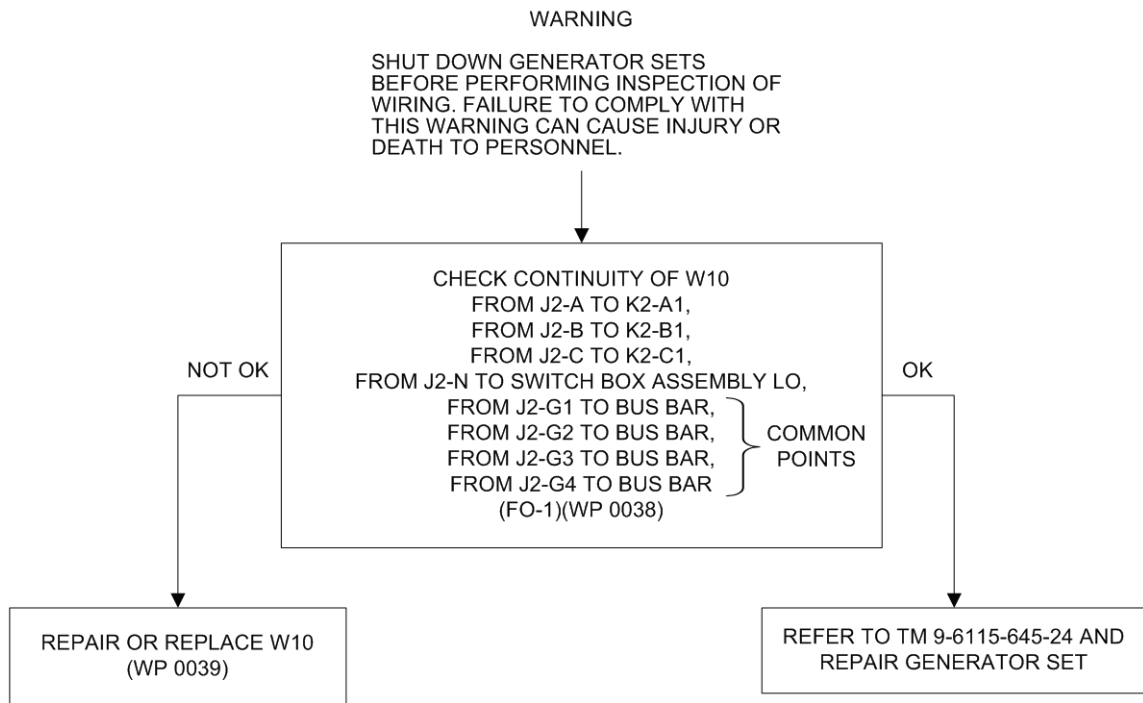


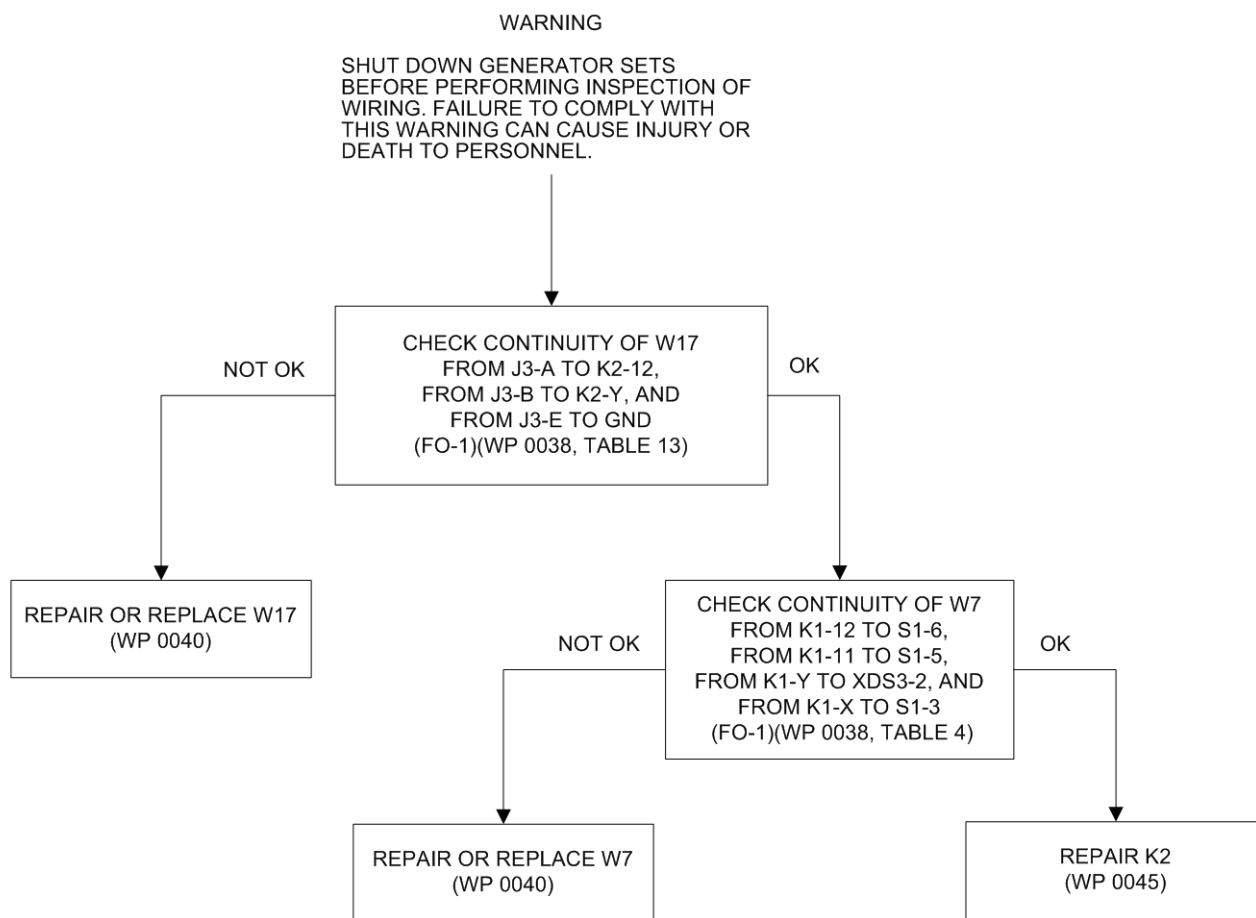
NOTE

THIS TROUBLESHOOTING CHART COVERS THE B & C MODELS OF THE SWITCH BOX.

Figure 13. Unit B STATUS Lamp Does Not Light With Generator Set AC CIRCUIT INTERRUPTER Switch Closed (B & C Models).

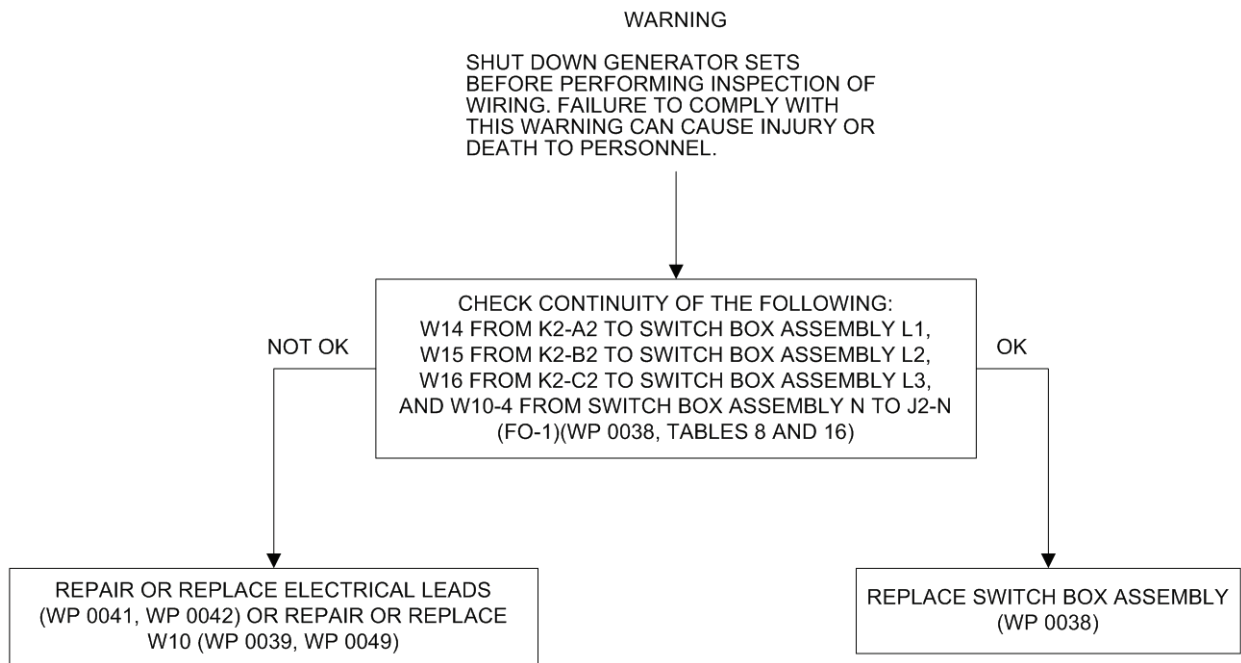




**NOTE**

THIS TROUBLESHOOTING CHART COVERS THE B & C MODELS OF THE SWITCH BOX.

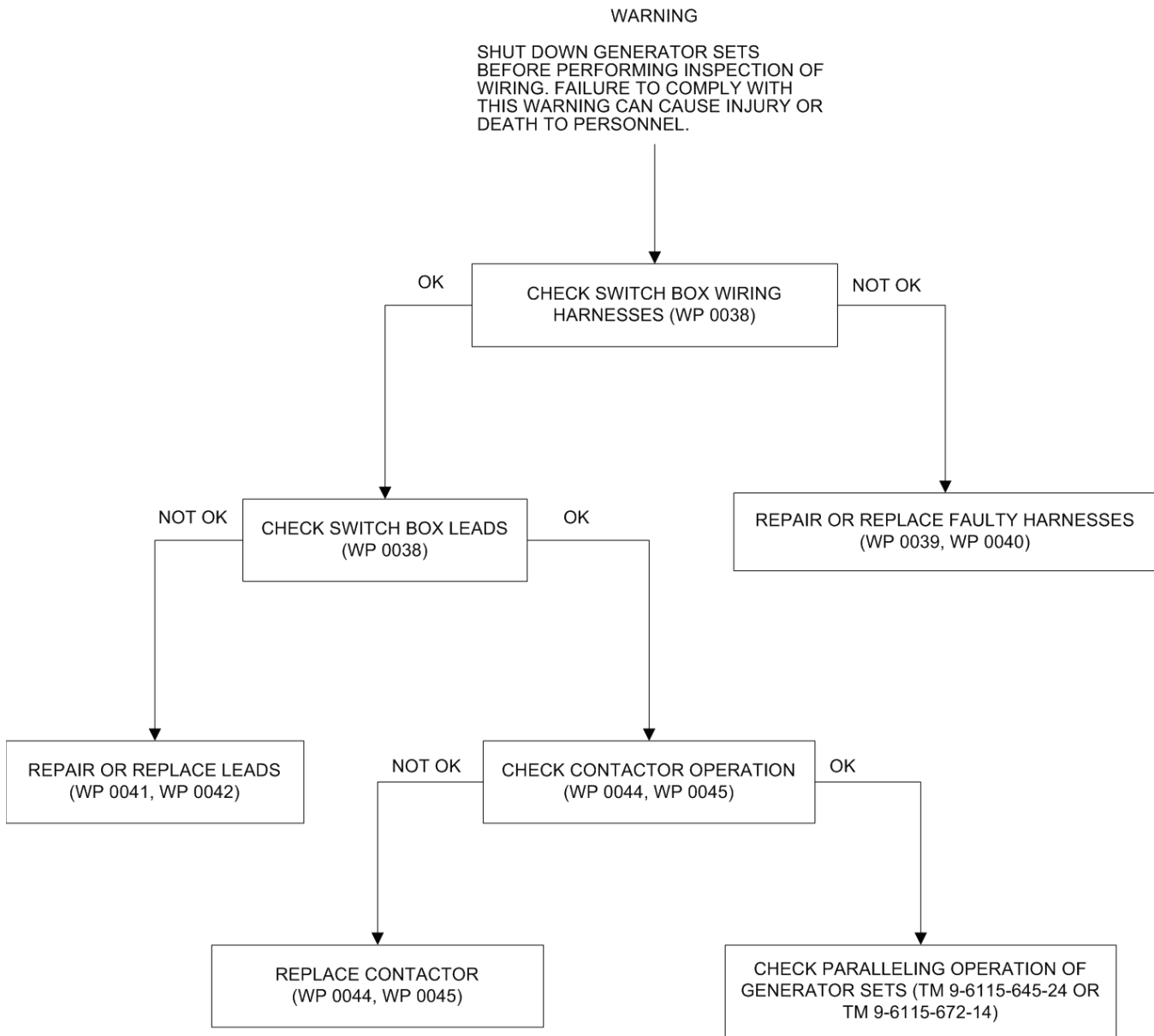
Figure 16. Unit B Has No Output Power from K2 (B & C Models).



NOTE

ON PREVIOUS MODEL SWITCH BOXES, LOAD TERMINAL N WAS DESIGNATED L0. THIS
TROUBLESHOOTING CHART COVERS A, B, & C MODELS OF THE SWITCH BOX.

Figure 17. Unit B Has Output Power from K2 But No Output at One or More Load Terminals.



NOTE

THIS TROUBLESHOOTING CHART COVERS A, B, & C MODELS OF THE SWITCH BOX.

Figure 18. Power Cable W19 and Paralleling Cable Are Good, But Unit Fails to Parallel Through Switch Box.

END OF WORK PACKAGE

CHAPTER 6

FIELD MAINTENANCE INSTRUCTIONS

FOR

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER
UNITS AND POWER PLANTS

CHAPTER 6

FIELD MAINTENANCE INSTRUCTIONS

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FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

SERVICE UPON RECEIPT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

References

TM 9-2330-205-14&P (Trailer)
TM 9-2815-256-24 (Engine)
TM 9-2815-260-24 (Engine)
TM 9-6115-645-24 (Generator Set)
TM 9-6115-672-14 (Generator Set)

SERVICE UPON RECEIPT OF MATERIEL

UNPACKING

Refer to Figure 1. The power unit is wrapped in plastic prior to shipment to OCONUS units. It is secured by metal banding for shipment to CONUS units. The PU-805, PU-805B, PU-806 and PU-806B are identical, with the exception of the electrical output frequency of the generator sets. Two Power Units are modified to make up a Power Plant. Therefore, the unpacking procedures and Figure 1 are typical for each configuration. Each generator set is packed in place on its respective trailer.

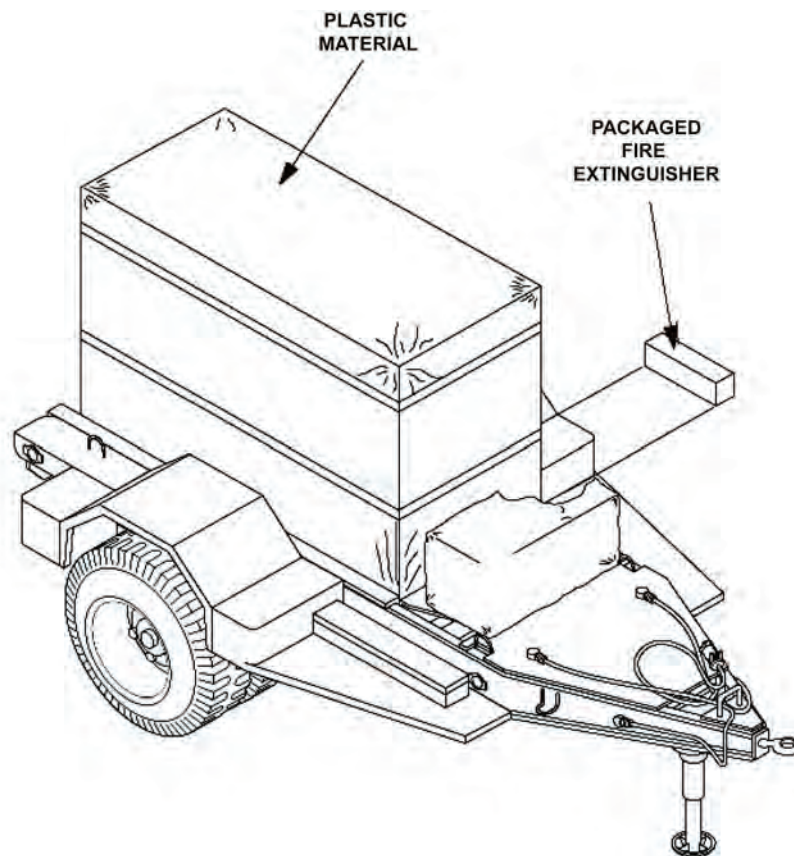


Figure 1. Power Unit Packed for Shipment.

1. Remove and set aside packing list from side of box. Also remove and set aside shortage packing list if there is one.

WARNING

Steel strapping used in packaging of the power plant/power unit has sharp edges. Wear gloves and use care when cutting and handling steel strapping. Failure to comply with this warning can cause injury to personnel.

2. Using metal cutters, carefully cut strapping from plastic covering generator set, accessory box, and, when unpacking Unit A, the switch box. Remove strapping.
3. Remove plastic cover over generator set by lifting off the cover.
4. Technical manuals are packaged and may be attached to barrier material. If so, remove and save technical manuals.
5. Remove packaged fire extinguisher from within generator set enclosures. Unpack and secure fire extinguisher in bracket on trailer.
6. Open accessory box and remove all packaging/cushioning material from accessories.
7. Using the packing list(s) removed in Step 1, inventory the accessories. Check missing items against shortage packing list (if any). Report any discrepancies to your supervisor.

END OF TASK

Checking Unpacked Equipment

1. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on DD 361, Transportation Discrepancy Report.
2. Check the equipment against the packing slip to see if the shipment is complete. Report all discrepancies in accordance with applicable service instructions (e.g., for Army instructions, see DA PAM 750-8).
3. Check to see whether the equipment has been modified.

END OF TASK

Deprocessing Unpacked Equipment

Refer to DA Form 2258, Depreservation Guide for Vehicles and Equipment, packed with the equipment. The depreservation guide explains what was done to the equipment prior to packaging. It also explains what has to be done before placing the equipment in operation. Perform all depreservation actions required by the depreservation guide.

Tools, Test Equipment, and Materials Required For Installation

A general mechanics tool kit is required for installation of the power unit/power plant.

Assembly of Equipment

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing inspection of load cables. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to assembly of all model power plants and power units covered in this technical manual.

Assembly of Power Plants**NOTE**

There are two possible configurations for the ground terminal on the trailer, a load terminal or a stud with associated hardware.

Refer to Figure 2 and assemble the AN/MJQ-41 or AN/MJQ-41B power plant as follows:

1. Remove power cable provided with Unit B power unit, located on Unit B (left fender).
2. Locate the leads and ensure they are marked L1, L2, L3, N, and GND.

NOTE

The neutral terminal may be designated "L0" instead of "N."

3. GND (ground) should be marked as a separate lead.
4. Open the access door panel (Figure 2, Item 5) to Unit B generator load terminals, then connect power cable leads as follows:
 - a. Connect lead marked L3 to generator set load terminal L3.
 - b. Connect lead marked L2 to generator set load terminal L2.
 - c. Connect lead marked L1 to generator set load terminal L1.
 - d. Connect lead marked N to generator set load terminal N.
 - e. Connect lead marked GND to generator set GND terminal.
5. For Units A and B remove 60 inch ground wire (Figure 2, Item 2) from accessory box. If necessary, remove one inch of insulation from both ends of ground wire (Figure 2, Item 2) and connect as follows:
 - a. If a trailer having the load terminal is being used, perform Steps e through h. Otherwise perform Steps 2, 3, 4, 7 and 8.
 - b. Remove and retain wing nut (Figure 2, Item 6), washers (Figure 2, Items 7 and 9), and nut (Figure 2, Item 8) from trailer ground stud (Figure 2, Item 10) and install ground terminal (Figure 2, Item 11) to ground stud (Figure 2, Item 10).
 - c. Install washers (Figure 2, Items 7 and 9) and nut (Figure 2, Item 8) on ground stud (Figure 2, Item 10).
 - d. Install wing nut (Figure 2, Item 6) on ground stud (Figure 2, Item 10) and tighten.
 - e. Loosen nut (Figure 2, Item 1) on trailer ground terminal.
 - f. Insert ground wire (Figure 2, Item 2) through slot of ground terminal.

WARNING

Ensure nuts on ground terminals are properly secured creating a good ground. Failure to comply with this warning can cause injury or death to personnel.

- g. Route ground wire (Figure 2, Item 2) through power cable sock (Figure 2, Item 3).
- h. Connect ground wire (Figure 2, Item 2) to generator set ground terminal (Figure 2, Item 4).

END OF TASK**Assembly of Power Units****NOTE**

There are two possible configurations for the ground terminal on the trailer, a load terminal or a stud with associated hardware.

Refer to Figure 2 and assemble the PU-805, PU-805B, PU-806 or PU-806B power unit as follows:

Remove 60 inch ground wire (Figure 2, Item 2) from accessory box. If necessary, remove one inch of insulation from both ends of ground wire (Figure 2, Item 2) and connect as follows:

1. If a trailer having the load terminal is being used, perform Steps 5. through 8. Otherwise perform Steps 2, 3, 4, 7, and 8.
2. Remove and retain wing nut (Figure 2, Item 6), washers (Figure 2, Items 7 and 9), and nut (Figure 2, Item 8) from trailer ground stud (Figure 2, Item 10) and install ground terminal (Figure 2, Item 11) to ground stud (Figure 2, Item 10).
3. Install washers (Figure 2, Items 7 and 9) and nut (Figure 2, Item 8) on ground stud (Figure 2, Item 10).
4. Install wing nut (Figure 2, Item 6) on ground stud (Figure 2, Item 10) and tighten.
5. Loosen nut (Figure 2, Item 1) on trailer ground terminal.

NOTE

Ground terminal will have two cables in slot after the following step is performed.

6. Insert ground wire (Figure 2, Item 2) through slot of ground terminal.

WARNING

Ensure nuts on ground terminals are properly secured creating a good ground. Failure to comply with this warning can cause injury or death to personnel.

7. Route ground wire (Figure 2, Item 2) through power cable sock (Figure 2, Item 3).
8. Connect ground wire (Figure 2, Item 2) to generator set ground terminal (Figure 2, Item 4).

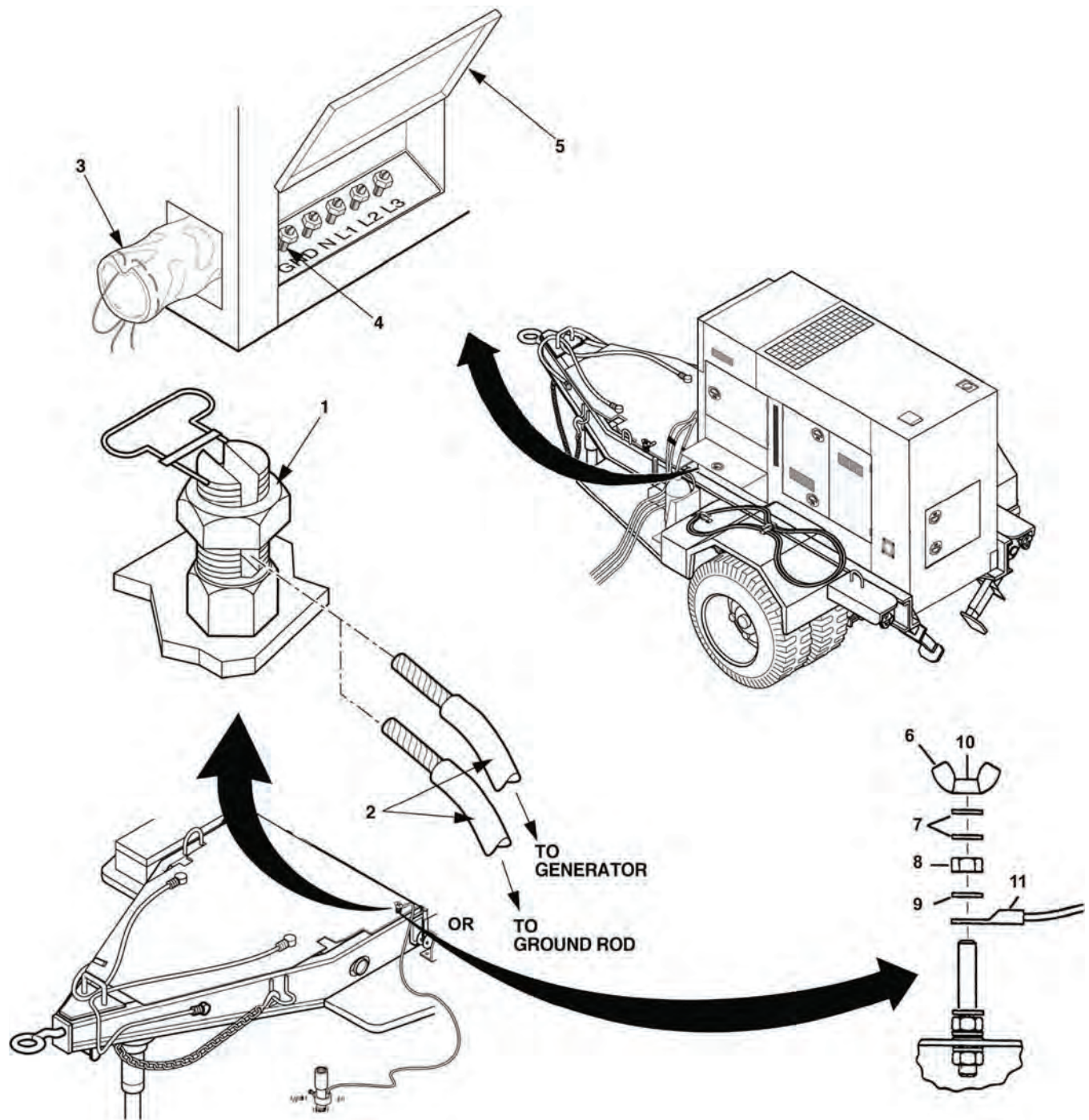


Figure 2. Installation Instructions.

END OF TASK

PRELIMINARY SERVICING OF EQUIPMENT**NOTE**

When referring to the TM 9-2330-205-14&P, make sure that the proper trailer chassis configuration is known.

Refer to TM 9-6115-645-24 and TM 9-6115-672-14 for generator set and TM 9-2815-256-24 and TM 9-2815-260-24 for engine. Refer to TM 9-2330-205-14&P for trailer.

END OF WORK PACKAGE

FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

PMCS INTRODUCTION

INTRODUCTION TO FIELD PMCS TABLE

WP 0018, Table 1 (PMCS table) has been provided so you can keep your equipment in good operating condition and ready for its primary mission.

Warnings, Cautions, and Notes.

Always observe the **WARNINGS**, **CAUTIONS**, and **NOTES** appearing in your PMCS table. Warnings and cautions appear before applicable procedures. You must observe **WARNINGS** to prevent serious injury to yourself and others. You must observe **CAUTIONS** to prevent your equipment from being damaged. You must observe **NOTES** to ensure procedures are performed properly.

Explanation of Table Entries

Item No. Column. Numbers in this column are for reference. When completing DA Form 2404 (Equipment Inspection and Maintenance Worksheet), include the item number for the check/service indicating a fault. Item numbers also appear in the order that you must do checks and services for the intervals listed.

Interval Column. This column tells you when you must do the procedure in the procedure column. Perform procedures such as "Monthly" or "Quarterly" at the listed calendar interval. Perform procedures designated by number of hours when the equipment has been operated for that many hours.

Item to be Checked or Serviced Column. This column lists the item to be checked or serviced.

Procedure Column. This column gives the procedures for checking or servicing the item listed in the item to be checked or serviced column. You must perform the procedure to know if the power plant/power unit is ready or available for its intended mission or operation. You must do the procedure at the time stated in the interval column.

Equipment Not Ready/Available If Column. Information in this column tells you what faults will keep the power plant/power unit from being capable of performing its primary mission. If checks or services show faults listed in this column, do not return the power plant/power unit to service until the faults have been corrected.

Corrosion Prevention and Control (CPC)

CPC of Army material is of continuing concern. It is important that any corrosion problems with the power plant be reported so that the problem can be corrected and improvements can be made to prevent the problem in the future items. While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem. If a corrosion problem is identified, it can be reported using Standard Form 368, Product Quality Deficiency Report. Use of key words such as "corrosion," "rust," "deterioration," or "cracking" will ensure that the information is identified as a CPC problem. The form should be submitted to the address specified in DA Pam 738-750.

Order in Which PMCS Will be Done

For the order in which PMCS will be done, see Figure 1.

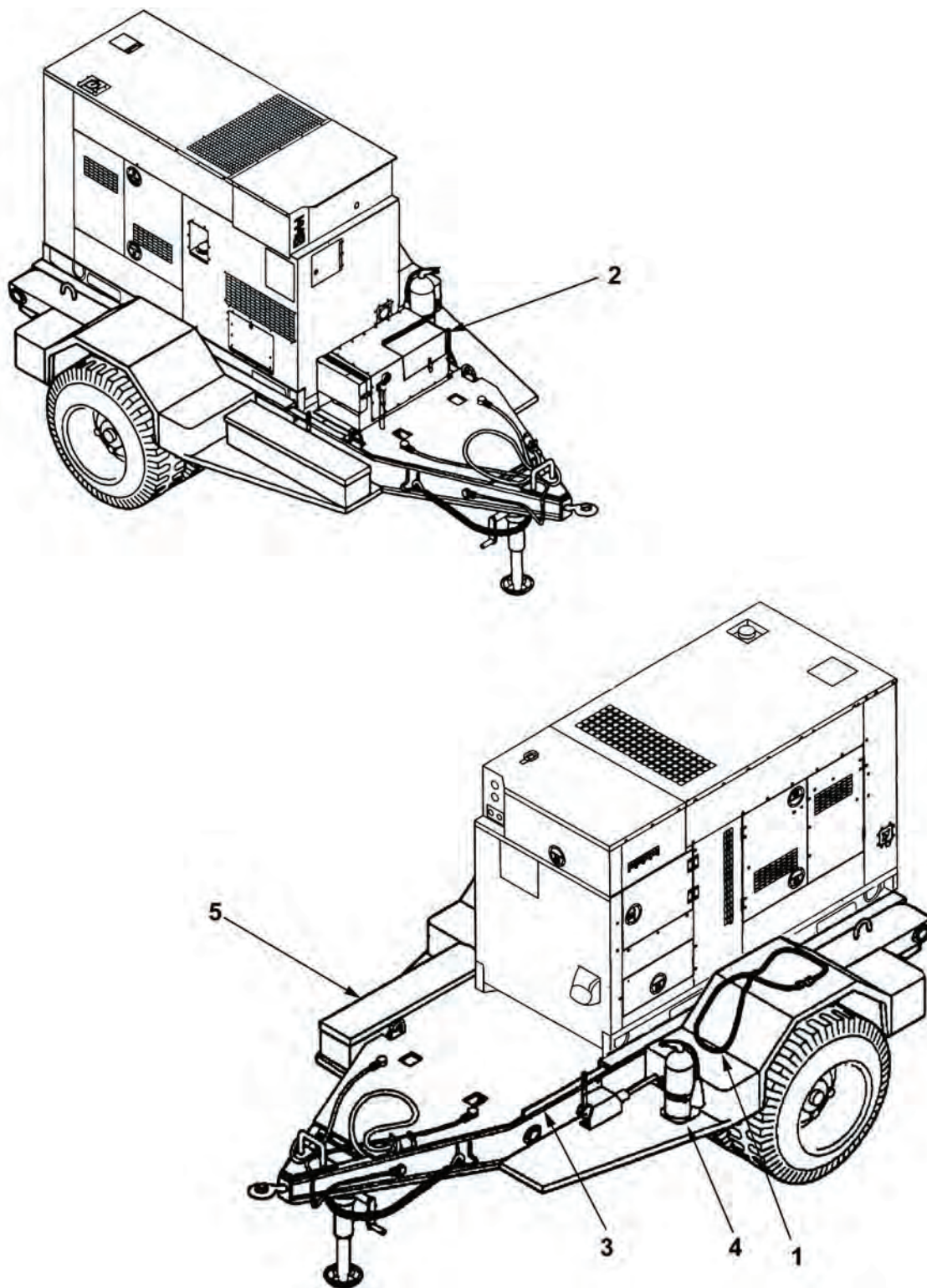


Figure 1. Field PMCS Routing Diagram.

END OF WORK PACKAGE

FIELD MAINTENANCE

**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
PMCS, INCLUDING LUBRICATION INSTRUCTIONS**

INITIAL SETUP:**Materials/Parts**

Rag, Wiping (WP 0115, Item 7)

Personnel Required

Operator(1)

91D Assistant(1)

References

Description and Use of Controls and Indicators (WP 0004)

WARNING

Before performing any maintenance that requires climbing on or under trailer, make sure that trailer handbrakes are set, trailer front landing leg/support leg is lowered, and leveling support jack is lowered. Failure to comply with this warning can cause injury or death to personnel from trailer suddenly rolling or tipping.

NOTE

This PMCS table lists the checks and services as performed on a single power unit. These procedures must be duplicated on each power unit that makes up the power plants.

NOTE

Unit B of the power plants and the power units do not have a switch box. Maintenance for the switch box is only applicable to Unit A of the power plants.

Table 1. Field Preventive Maintenance Checks and Services. (PU-805, PU-805B, PU-806, PU-806B, AN/MJQ-41, and AN/MJQ-41B)..

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
1	SEMI-ANNUALLY	POWER CABLE (AN/MJQ-41/41B)	Inspect power cable for worn, frayed, or cracked insulation, loose terminal lugs, and loose connections. Tighten as needed.	Power cable is unserviceable.
2	SEMI-ANNUALLY	SWITCH BOX ASSEMBLY (AN/MJQ-41/41B)	a. Inspect switch box assembly. Refer to WP 0021 and WP 0022. b. Inspect mounting brackets for cracks or for loose or missing hardware.	Loose, missing or broken parts; worn wire insulation. Mounting bracket is cracked; loose or missing hardware.
3	SEMI-ANNUALLY	MOUNTING RAILS	Inspect for cracks and deformation.	Mounting rail is cracked or deformed.

Table 1. Field Preventive Maintenance Checks and Services. (PU-805, PU-805B, PU-806, PU-806B, AN/MJQ-41, and AN/MJQ-41B).. - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
4	SEMI-ANNUALLY	FIRE EXTINGUISHER	a. Inspect for broken seal and damage to handle. b. Weigh to determine whether charge is sufficient. Weight is about 13 pounds when fully charged. If weight is 12.5 pounds or less, send to specialized activity for recharging.	Seal broken or missing. Fire extinguisher not charged.
5	SEMI-ANNUALLY	ACCESSORY BOX	Inspect clamping catch, hasp, and rivets for rust, corrosion, and wear.	Clamping catch and hasp are unserviceable.

Mandatory Replacement Parts List

There are no replacement parts required for these PMCS procedures.

LUBRICATION INSTRUCTIONS

There are no lubrication instructions required for these PMCS procedures.

END OF WORK PACKAGE

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****MAINTENANCE OF GENERATOR SETS**

INITIAL SETUP:**Tools and Special Tools**

Refer to TM 9-6115-645-24P and TM 9-6115-672-24P for generator set special tools and/or support equipment. Refer to TM 9-2815-256-24P and TM 9-6115-260-24P for engine special tools and/or support equipment. Refer to TM 9-2330-205-14&P for trailer maintenance.

MAINTENANCE OF GENERATOR SETS

Refer to TM 9-6115-645-24 and TM 9-6115-672-14 for generator sets and to TM 9-2815-256-24 and TM 9-6115-260-24 for the engine.

END OF WORK PACKAGE

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****POWER CABLE W19 MAINTENANCE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)
Multimeter (WP 0112, Table 2, Item 3)

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

Power plant prepared for movement, WP 0005

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

REMOVAL

Disconnect electrical leads of power cable (WP 0005, Figure 4, Item 12) from Unit B.

END OF TASK**TEST AND INSPECTION**

1. Set multimeter for resistance.
2. Refer to FO-1 and check continuity of each electrical lead from P2.

NOTE

Pins G1, G2, G3, and G4 are common points and should read continuity to each green wire. Ensure that G1, G2, G3, and G4 are common points and read continuity to each other.

Table 1. Cable Assembly W19.

Wire Color	From	To
Black	P2-A	L1
Red	P2-B	L2
Blue	P2-C	L3
White	P2-N	N
Green	P2-G1	GND
Green	P2-G2	GND
Green	P2-G3	GND
Green	P2-G4	GND

END OF TASK**INSTALLATION**

Connect the leads of the power cable to the generator set on Unit B.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
SWITCH BOX ASSEMBLY MAINTENANCE (A MODEL)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

Materials/Parts

Locknuts
Washers, Lock

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

Trailer support devices are lowered. Refer to "Positioning Power Unit/Power Plant" located in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

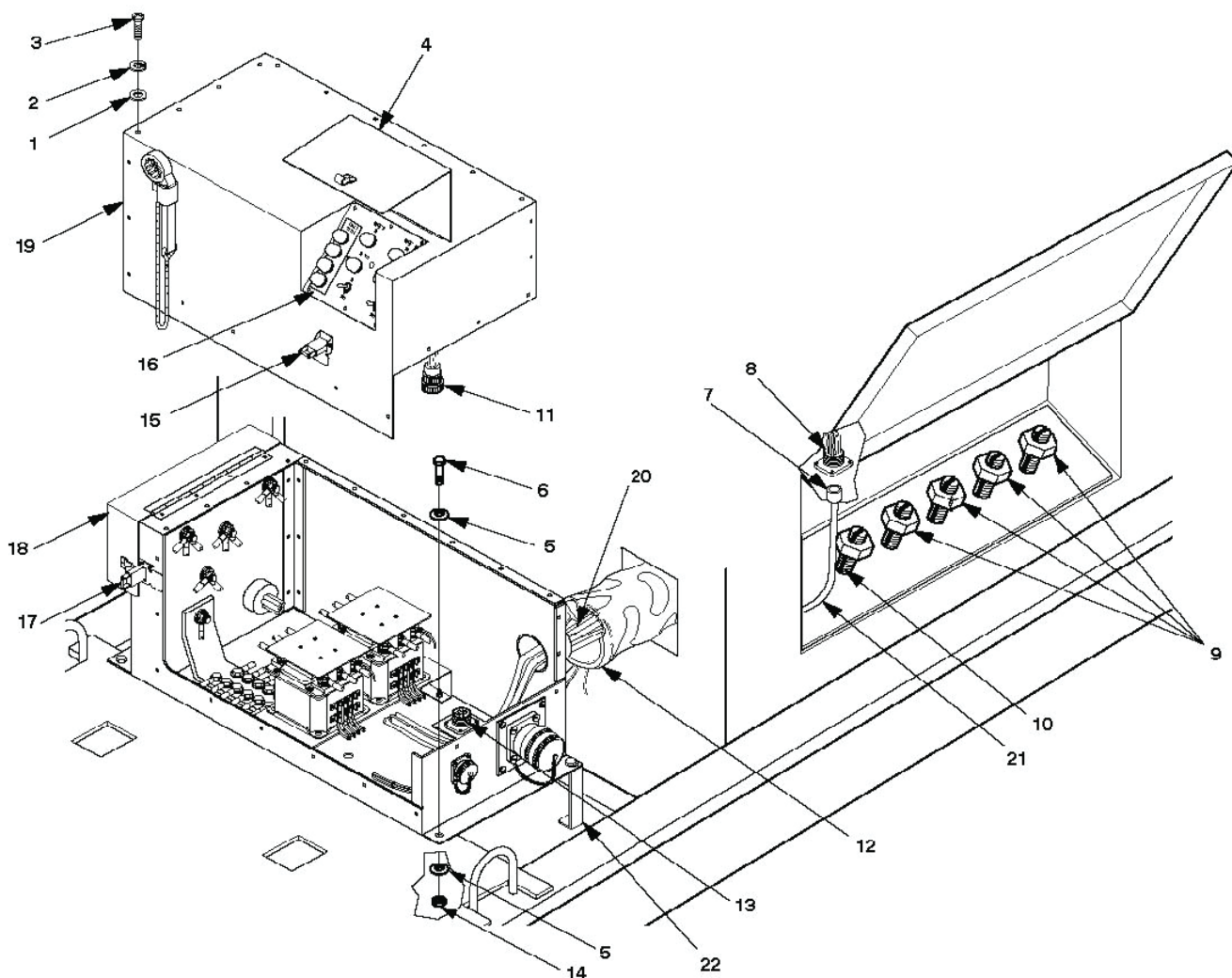


Figure 1. Switch Box Assembly Maintenance (Typical A Model).

REMOVAL

1. Remove four locknuts (Figure 1, Item 14), eight flat washers (Figure 1, Item 5), and four cap screws (Figure 1, Item 6) that secure the switch box assembly. Discard locknuts (Figure 1, Item 14).
2. Disconnect L1, L2, L3, and N from generator set load terminals (Figure 1, Item 9).
3. Disconnect GND from the generator set ground terminal (Figure 1, Item 10).
4. Disconnect P1 (Figure 1, Item 7) from J16 (Figure 1, Item 8) of generator set.
5. Remove switch box assembly.

END OF TASK

TEST AND INSPECTION

1. Release clamping catch (Figure 1, Item 15) and open control panel access cover (Figure 1, Item 4).
2. Inspect control panel assembly (Figure 1, Item 16) for missing or broken parts.

3. Close control panel access cover (Figure 1, Item 4) and secure with clamping catch (Figure 1, Item 15).
4. Release clamping catch (Figure 1, Item 17) and open load terminal door (Figure 1, Item 18).
5. Inspect load terminals (Figure 1, Item 9) and ground terminal (Figure 1, Item 10) for missing or broken parts.
6. Close load terminal door (Figure 1, Item 18) and secure with clamping catch (Figure 1, Item 17).
7. Remove cap screws (Figure 1, Item 3), lockwashers (Figure 1, Item 2), and flat washers (Figure 1, Item 1). Discard lockwashers (Figure 1, Item 2).

CAUTION

The control panel connector P3 is connected to connector J4. Movement of the switch box cover is limited. Slide the switch box cover from the switch box assembly carefully to prevent damage to control panel wiring harness.

8. Carefully position switch box cover (Figure 1, Item 19) in front of switch box assembly.
9. Disconnect P3 (Figure 1, Item 11) from J4 (Figure 1, Item 13).
10. Remove switch box cover (Figure 1, Item 19).
11. Inspect for loose component mounting and missing connections. Tighten all loose connections.
12. Inspect all leads and wires for worn or deteriorated insulation that reveals bare spots in conductors. If found, notify next higher level of maintenance.
13. Position switch box cover (Figure 1, Item 19) in front of switch box assembly.
14. Connect P3 (Figure 1, Item 11) to J4 (Figure 1, Item 13).
15. Position switch box cover (Figure 1, Item 19) over switch box assembly and align mounting holes.
16. Install flat washers (Figure 1, Item 1), new lockwashers (Figure 1, Item 2), and cap screws (Figure 1, Item 3), which secure the switch box cover (Figure 1, Item 19).

END OF TASK

INSTALLATION

1. Position switch box assembly on switch box support (Figure 1, Item 22) and front platform.
2. Route electrical leads (Figure 1, Item 20) and cable harness (Figure 1, Item 21) through the power cable sock (Figure 1, Item 12).
3. Align mounting holes of the switch box assembly and switch box support (Figure 1, Item 22).
4. Install four cap screws (Figure 1, Item 6), eight flat washers (Figure 1, Item 5), and four new locknuts (Figure 1, Item 14), to secure switch box assembly.
5. Connect P1 (Figure 1, Item 7) to J16 (Figure 1, Item 8) of generator set.
6. Connect W1, W2, W3, W4, and W5 to the load terminals (Figure 1, Item 9) of the generator set as follows:
 - a. Connect W1 to L1.
 - b. Connect W2 to L2.
 - c. Connect W3 to L3.
 - d. Connect W4 to L0.
7. Connect W5 to GND (Figure 1, Item 10).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
SWITCH BOX ASSEMBLY MAINTENANCE (B & C MODELS)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

Materials/Parts

Washers, Lock

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

Trailer support devices are lowered. Refer to "Positioning Power Unit/Power Plant" located in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

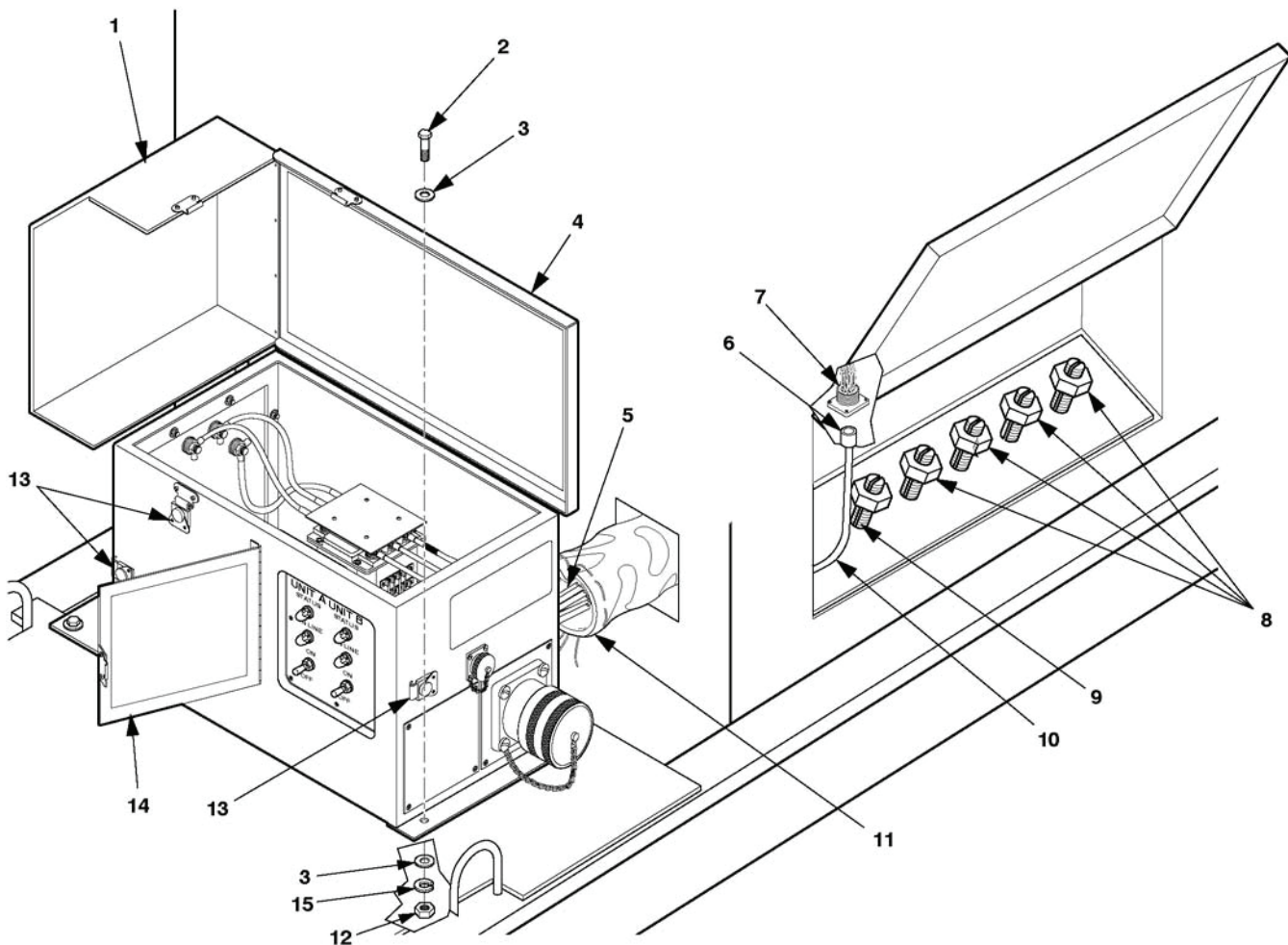


Figure 1. Switch Box Assembly Maintenance (Typical B & C Models).

REMOVAL

1. Remove nuts (Figure 1, Item 12), lockwashers (Figure 1, Item 15), flat washers (Figure 1, Item 3), and cap screws (Figure 1, Item 2) that secure the switch box assembly. Discard lockwashers (Figure 1, Item 15).
2. Disconnect L1, L2, L3, and N from the generator set load terminals (Figure 1, Item 8).
3. Disconnect GND from the generator set ground terminal (Figure 1, Item 9).
4. Disconnect P1 (Figure 1, Item 6) from J16 (Figure 1, Item 7) of the generator set.
5. Remove switch box assembly, carefully pulling P1 (Figure 1, Item 6) through the power cable sock (Figure 1, Item 11).

END OF TASK

TEST AND INSPECTION

1. Release clamping catch (Figure 1, Item 13) and open the control panel access cover (Figure 1, Item 14).
2. Inspect control panel assembly for missing or broken parts.
3. Close control panel access cover (Figure 1, Item 14) and secure with clamping catch (Figure 1, Item 13).

4. Release clamping catches and open load terminal door (Figure 1, Item 1).
5. Inspect load terminals (Figure 1, Item 8) and ground terminal (Figure 1, Item 9) for missing or broken parts.
6. Close load terminal door (Figure 1, Item 1) and secure with clamping catches.
7. Release clamping catches (Figure 1, Item 13) of switch box cover (Figure 1, Item 4) in front of switch box assembly.
8. Lift switch box cover (Figure 1, Item 4).
9. Inspect for loose component mounting and missing connections. Tighten all loose connections.
10. Inspect all leads and wires for worn or deteriorated insulation that reveals bare spots in conductors. If found, notify next higher level of maintenance.
11. Close switch box cover (Figure 1, Item 4) and secure clamping catches (Figure 1, Item 13) in front of switch box assembly.

END OF TASK

INSTALLATION

1. Position switch box assembly on the front platform.
2. Route electrical leads (Figure 1, Item 5) and cable harness (Figure 1, Item 10) through the power cable sock (Figure 1, Item 11).
3. Align mounting holes of switch box assembly.
4. Install cap screws (Figure 1, Item 2), flat washers (Figure 1, Item 3), new lockwashers (Figure 1, Item 15), and nuts (Figure 1, Item 12) to secure switch box assembly.
5. Connect P1 (Figure 1, Item 6) to J16 (Figure 1, Item 7) of generator set.
6. Connect W1, W2, W3, W4, and W5 to load terminals (Figure 1, Item 8) of generator set as follows:
 - a. Connect W1 to L1.
 - b. Connect W2 to L2.
 - c. Connect W3 to L3.
 - d. Connect W4 to N.
7. Connect W5 to GND (Figure 1, Item 9).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
LOAD TERMINAL WRENCH ASSEMBLY MAINTENANCE (A MODEL)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

Materials/Parts

Washers, Lock

References

Switch Box Assembly (A Model) (WP 0021)

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

Trailer support devices are lowered. Refer to "Positioning Power Unit/Power Plant" located in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

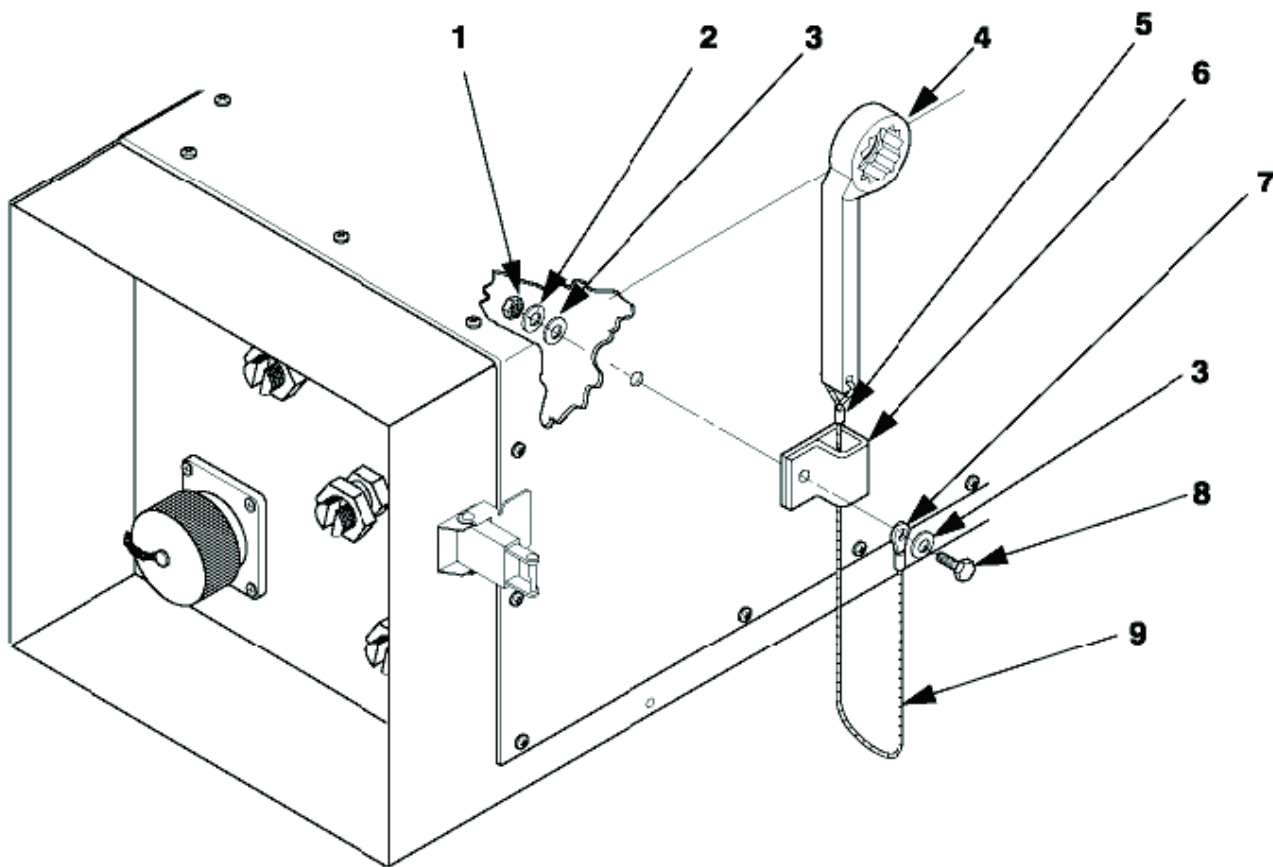


Figure 1. Switch Box Load Terminal Wrench Assembly Replacement (A Model).

REMOVAL

1. Refer to WP 0021 and perform Steps 7 through 10 of Test and Inspection.
2. Remove cap screw (Figure 1, Item 8), two flat washers (Figure 1, Item 3), lockwasher (Figure 1, Item 2), nut (Figure 1, Item 1), loop clamp (Figure 1, Item 6), and box wrench (Figure 1, Item 4) with attached rope (Figure 1, Item 9). Discard lockwasher (Figure 1, Item 2).

END OF TASK

REPAIR OR REPLACEMENT

When the rope (Figure 1, Item 9) requires replacement, perform the following:

1. Cut old rope (Figure 1, Item 9) from box wrench (Figure 1, Item 4).
2. On new rope, heat each end to prevent unraveling.
3. Install new terminal lug (Figure 1, Item 7) to one end of rope (Figure 1, Item 9).
4. Thread other end of rope through the opening in handle of box wrench (Figure 1, Item 4).
5. Install conductor splice (Figure 1, Item 5) to secure rope (Figure 1, Item 9) to box wrench (Figure 1, Item 4).

END OF TASK

INSTALLATION

1. Place loop clamp (Figure 1, Item 6) so mounting holes are aligned with switch box cover (WP 0021, Figure 1, Item 19) holes.
2. Drop terminal lug end of rope (Figure 1, Item 9) with box wrench (Figure 1, Item 4) through loop clamp (Figure 1, Item 6), as shown in Figure 1.
3. Install cap screw (Figure 1, Item 8), two flat washers (Figure 1, Item 3), terminal lug (Figure 1, Item 7), new lockwasher (Figure 1, Item 2), and nut (Figure 1, Item 1) which secure loop clamp (Figure 1, Item 6) to switch box cover (WP 0021, Figure 1, Item 19).
4. Refer to WP 0021 and perform Steps 13 through 16 of Test and Inspection.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
LOAD TERMINAL WRENCH ASSEMBLY MAINTENANCE (B & C MODELS)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)
Drill, 1/4 inch (component of WP 0112, Table 2, Item 5)

Materials/Parts

Rivets, Blind Head

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

Trailer support devices are lowered. Refer to "Positioning Power Unit/Power Plant" located in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

NOTE

Two (2) load terminal wrenches are provided with this switch box.

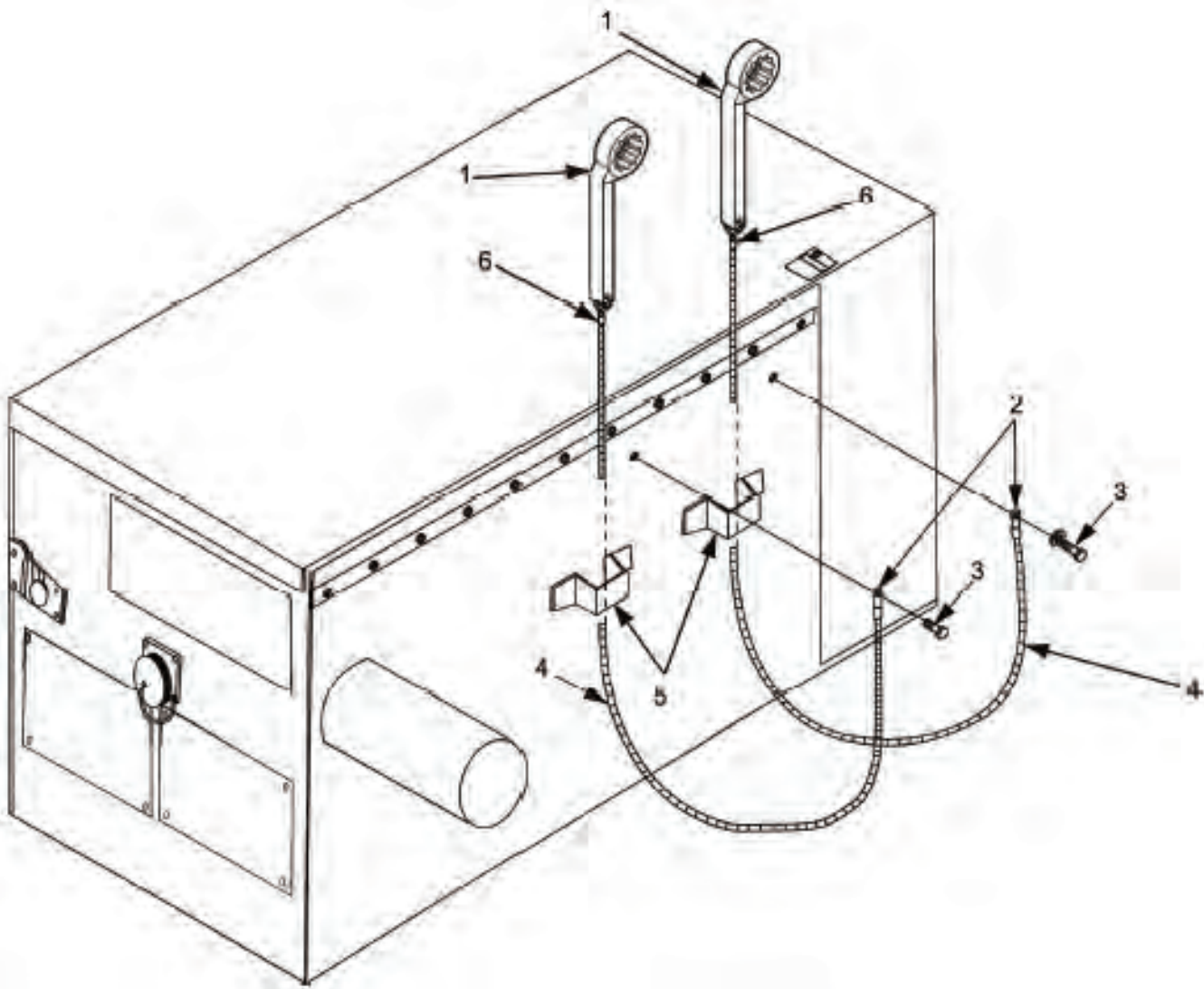


Figure 1. Switch Box Load Terminal Wrench Assembly Replacement (B & C Models).

REMOVAL

1. Drill out rivet (Figure 1, Item 3) that secures rope (Figure 1, Item 4) to switch box.
2. Remove box wrench (Figure 1, Item 1) with attached rope (Figure 1, Item 4) from loop clamp (Figure 1, Item 5).
3. Repeat Steps 1 and 2 for second load terminal wrench.

END OF TASK

REPAIR OR REPLACEMENT

When the rope (Figure 1, Item 4) of either load terminal wrench (Figure 1, Item 1) requires replacement, perform the following:

1. Cut old rope (Figure 1, Item 4) from box wrench (Figure 1, Item 1).
2. On new rope, heat each end to prevent unraveling.

3. Install new terminal lug (Figure 1, Item 2) to one end of rope (Figure 1, Item 4).
4. Thread other end of rope (Figure 1, Item 4) through opening in handle of box wrench (Figure 1, Item 1).
5. Install conductor splice (Figure 1, Item 6) to secure rope (Figure 1, Item 4) to box wrench (Figure 1, Item 1).

END OF TASK**INSTALLATION**

1. Replace box wrench (Figure 1, Item 1) with attached rope (Figure 1, Item 4) in loop clamp (Figure 1, Item 5).
2. Position terminal lug end (Figure 1, Item 2) of rope (Figure 1, Item 4) over mounting hole and secure with rivet (Figure 1, Item 3).
3. Repeat Steps 1 and 2 for second load terminal wrench.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****CLAMPING CATCH MAINTENANCE (A MODEL)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)
Drill, 1/4 inch (component of WP 0112, Table 2, Item 5)
Riveter, Blind Head (component of WP 0112, Table 2, Item 6)

Materials/Parts

Rivets, Blind Head

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

Trailer support devices are lowered. Refer to "Positioning Power Unit/Power Plant" located in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

NOTE

A new clamping catch and latch have been added to the supply system. The figure depicts the old clamping catch and latch. The remove and install procedures remain the same.

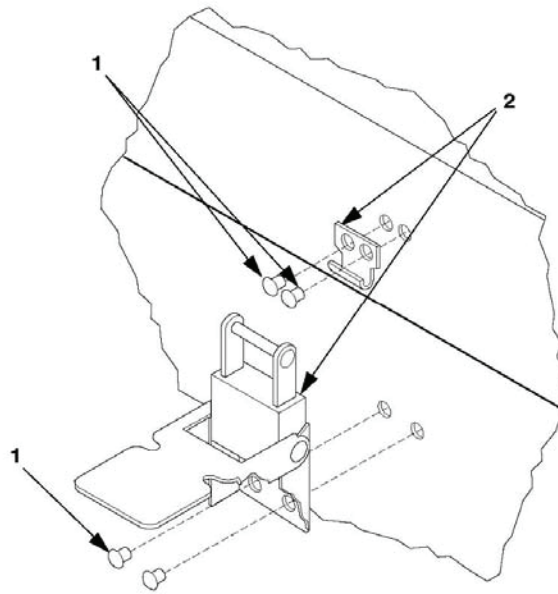


Figure 1. Clamping Catch Replacement (A Model).

REMOVAL

1. Drill out rivets (Figure 1, Item 1) that secure clamping catch (Figure 1, Item 2).
2. Remove defective clamping catch (Figure 1, Item 2).

END OF TASK

INSTALLATION

1. Position new clamping catch (Figure 1, Item 2) and secure with rivets (Figure 1, Item 1).
2. Close cover.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****CLAMPING CATCH MAINTENANCE (B & C MODELS)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)
Drill, 1/4 inch (component of WP 0112, Table 2, Item 5)
Riveter, Blind Head (component of WP 0112, Table 2, Item 6)

Materials/Parts

Rivets, Blind Head

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

Trailer support devices are lowered. Refer to "Positioning Power Unit/Power Plant" located in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

NOTE

A new clamping catch and latch have been added to the supply system. The figure depicts the old clamping catch and latch. The remove and install procedures remain the same.

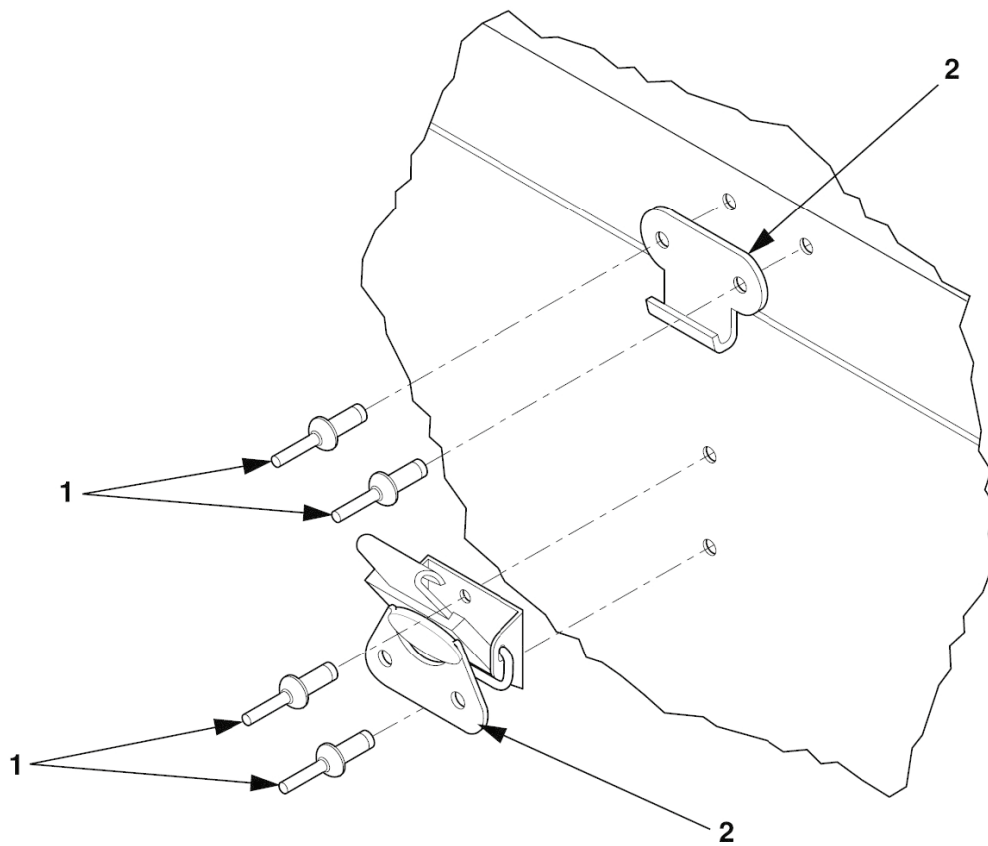


Figure 1. Clamping Catch Replacement (B & C Models).

REMOVAL

1. Drill out rivets (Figure 1, Item 1) that secure clamping catch (Figure 1, Item 2).
2. Remove defective clamping catch (Figure 1, Item 2).

END OF TASK

INSTALLATION

1. Position new clamping catch (Figure 1, Item 2) and secure with rivets (Figure 1, Item 1).
2. Close cover.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
SWITCH BOX TOGGLE SWITCH MAINTENANCE (A, B, & C MODELS)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)
Multimeter, AN/PSM-45A (WP 0112, Table 2, Item
3)

Materials/Parts

Washers, Lock

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

Trailer support devices are lowered. Refer to "Positioning Power Unit/Power Plant" located in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

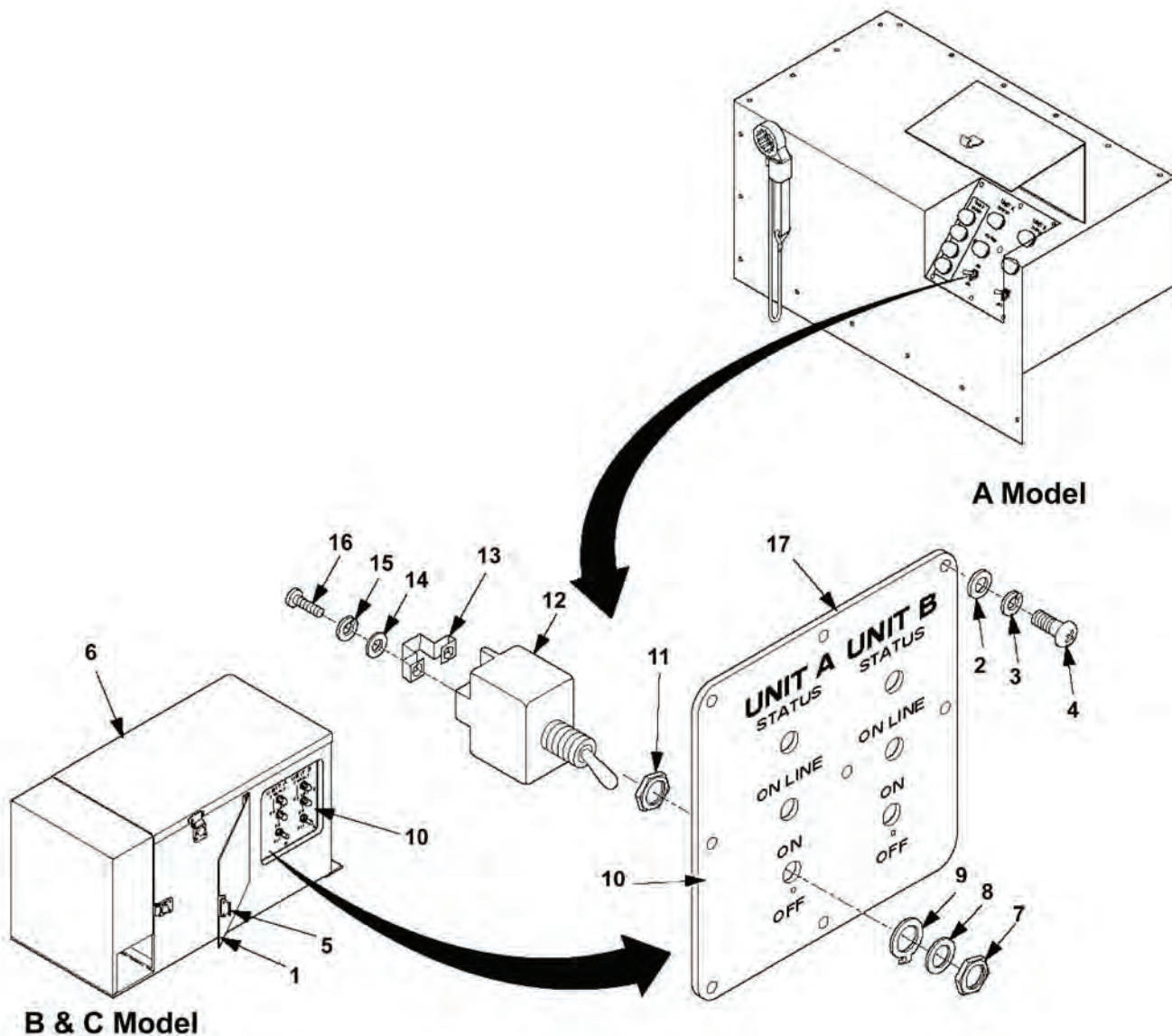


Figure 1. Toggle Switch Replacement (A, B, & C Models).

REMOVAL

1. Release clamping catch (Figure 1, Item 5) and open the control panel access cover (Figure 1, Item 1).
2. Remove cap screws (Figure 1, Item 4), lockwashers (Figure 1, Item 3), and flat washers (Figure 1, Item 2). Remove control panel assembly (Figure 1, Item 10) from switch box cover (Figure 1, Item 6). Discard lockwashers (Figure 1, Item 3).
3. Tag wires on terminals 3, 4, and 6 on back of switch (Figure 1, Item 12).
4. Remove terminal screws (Figure 1, Item 16), lockwashers (Figure 1, Item 15), flat washers (Figure 1, Item 14), and conductor bus (Figure 1, Item 13) from switch terminals. Discard lockwashers (Figure 1, Item 15).
5. Remove nut (Figure 1, Item 7), lockwasher (Figure 1, Item 8), locking ring (Figure 1, Item 9) and switch (Figure 1, Item 12).

END OF TASK

TEST AND INSPECTION

1. Set multimeter for continuity test.
2. With switch (Figure 1, Item 12) in center position, check continuity of switch between terminals 3 and 5.
3. If no continuity in Step 2, replace switch.
4. With switch (Figure 1, Item 12) in OFF position, check continuity of switch between:
 - a. Terminals 3 and 5
 - b. Terminals 2 and 6
 - c. Terminals 3 and 6
 - d. If there is continuity in Steps a, b, or c, replace switch.

END OF TASK**INSTALLATION**

1. Remove nut (Figure 1, Item 7), lockwasher (Figure 1, Item 8), and locking ring (Figure 1, Item 9) from new switch.
2. Hand tighten nut (Figure 1, Item 11) on switch.

NOTE

Make sure terminals 3 and 6 of switch are toward bottom of panel when installing toggle switch.

3. Insert switch body (Figure 1, Item 12) into mounting hole and position nut (Figure 1, Item 11) against control panel assembly (Figure 1, Item 10).
4. Install locking ring (Figure 1, Item 9) into keyway of switch until alignment tip goes into control panel assembly (Figure 1, Item 10).
5. Install lockwasher (Figure 1, Item 8) against locking ring (Figure 1, Item 9).
6. Install nut (Figure 1, Item 7) and tighten, making sure that locking ring (Figure 1, Item 9) alignment tip is engaged in control panel assembly (Figure 1, Item 10).
7. Remove screws (Figure 1, Item 16) with washers from terminals of new switch (Figure 1, Item 12).
8. Install conductor bus (Figure 1, Item 13) between terminals 2 and 5.
9. Install tagged wires, terminal screws (Figure 1, Item 16), new lockwashers (Figure 1, Item 15), and flat washers (Figure 1, Item 14) to terminals.
10. Position control panel assembly (Figure 1, Item 10) with gasket (Figure 1, Item 17) on switch box cover (Figure 1, Item 6) and align mounting holes.
11. Install flat washers (Figure 1, Item 2), new lockwashers (Figure 1, Item 3), and cap screws (Figure 1, Item 4).
12. Close control panel access cover (Figure 1, Item 1) and secure with clamping catch (Figure 1, Item 5).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****INDICATOR LIGHT MAINTENANCE (A, B, & C MODELS)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)
Multimeter, AN/ASM-45A (WP 0112, Table 2, Item 3)
Solder gun (component of WP 0112, Table 2, Item 5)
Heat shrink gun (component of WP 0112, Table 2, Item 5)

Materials/Parts

Solder (component of WP 0115, Item 5)
Washers, Lock
Heat shrink tubing

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

Trailer support devices are lowered. Refer to "Positioning Power Unit/Power Plant" located in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

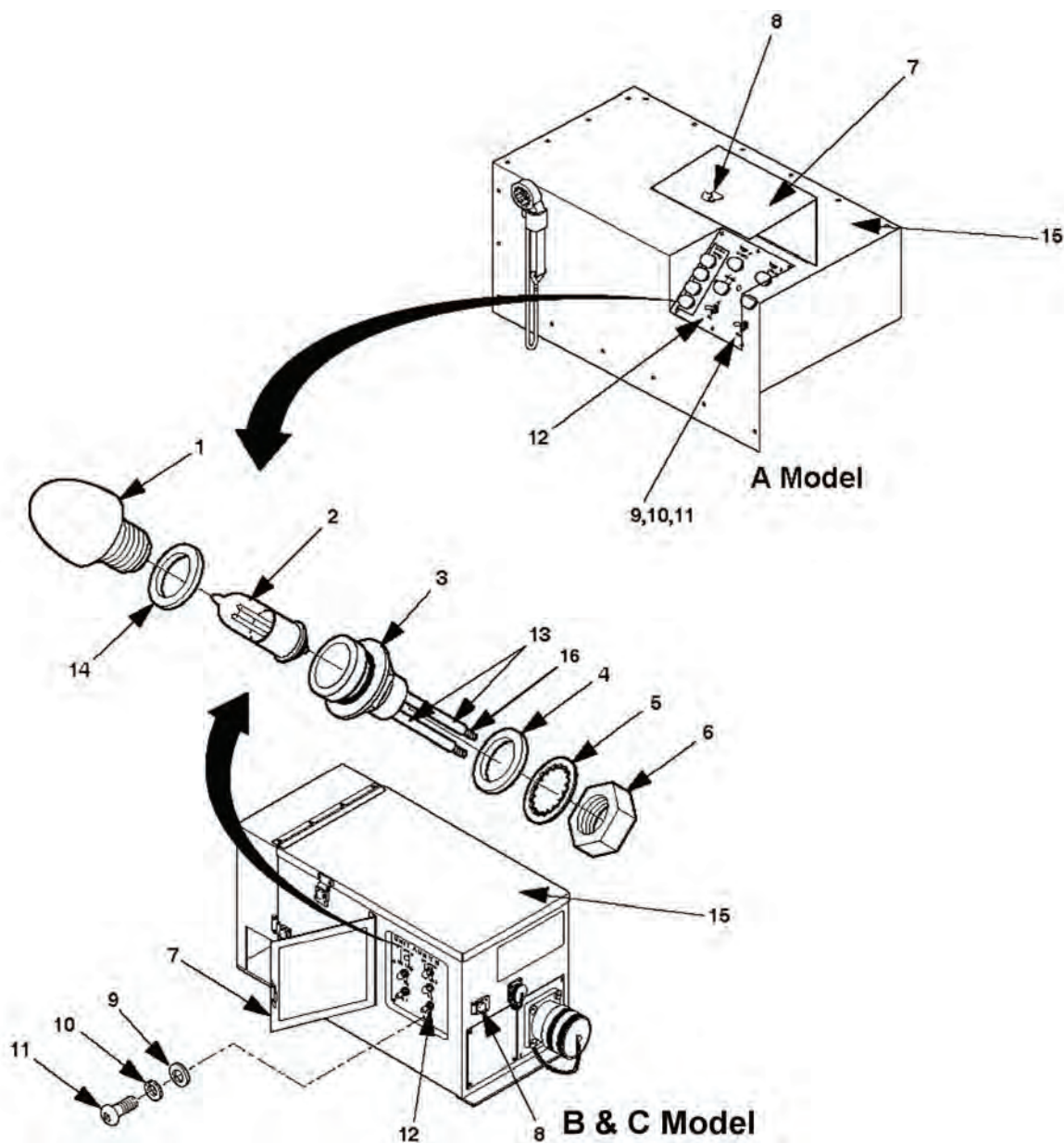


Figure 1. Indicator Light Replacement.

REMOVAL

1. Release clamping catch (Figure 1, Item 8) and open control panel access cover (Figure 1, Item 7).
2. Remove screws (Figure 1, Item 11), lockwashers (Figure 1, Item 10), flat washers (Figure 1, Item 9), and control panel assembly (Figure 1, Item 12). Discard lockwashers (Figure 1, Item 10).

NOTE

The switch box assembly has four lamps. Replacement procedures are the same for each indicator lamp.

3. Tag leads (Figure 1, Item 16) connected to each terminal of indicator lamp housing to be replaced, peel back heat shrink tubing (Figure 1, Item 13), and unsolder each lead.

4. Remove and discard heat shrink tubing (Figure 1, Item 13) from leads (Figure 1, Item 16).
5. Remove and retain lens (Figure 1, Item 1), O-ring (Figure 1, Item 14), and lamp (Figure 1, Item 2).
6. Remove mounting nut (Figure 1, Item 6) and internal tooth lockwasher (Figure 1, Item 5).
7. Slide indicator housing (Figure 1, Item 3) out of control panel assembly (Figure 1, Item 12) and remove O-ring (Figure 1, Item 4).

END OF TASK**TEST AND INSPECTION**

Using multimeter, measure continuity between pins (Figure 1, Item 13). If no continuity, replace lamp (Figure 1, Item 2). If lamp (Figure 1, Item 2) does not light and continuity exists, replace indicator housing (Figure 1, Item 3).

END OF TASK**INSTALLATION**

1. Remove mounting nut (Figure 1, Item 6), internal tooth lockwasher (Figure 1, Item 5), and O-ring (Figure 1, Item 4) from new indicator housing (Figure 1, Item 3).
2. Install O-ring (Figure 1, Item 4) on indicator housing (Figure 1, Item 3) and insert indicator housing (Figure 1, Item 3) through control panel assembly (Figure 1, Item 12).
3. Install internal tooth lockwasher (Figure 1, Item 5) on indicator housing (Figure 1, Item 3).
4. Install mounting nut (Figure 1, Item 6) on indicator housing (Figure 1, Item 3).
5. Slip new heat shrink tubing (Figure 1, Item 13) over leads (Figure 1, Item 16).
6. Solder leads (Figure 1, Item 16) to the applicable terminals and remove tags.
7. Slide heat shrink tubing (Figure 1, Item 13) over soldered connections and shrink tubing.
8. Position control panel assembly (Figure 1, Item 12) with gasket on switch box cover (Figure 1, Item 15) and align mounting holes.
9. Install flat washers (Figure 1, Item 9), new lockwashers (Figure 1, Item 10), cap screws (Figure 1, Item 11), and control panel assembly (Figure 1, Item 12).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****SWITCH BOX LOAD TERMINAL MAINTENANCE (A MODEL)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

Materials/Parts

Terminal, Load ASTM A313 TY302 CONDB ROND
0.105
Washers, Lock

References

Switch Box Load Terminal (B & C Models) (WP
0031)

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.
Trailer support devices are lowered. Refer to "Positioning Power Unit/Power Plant" located in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

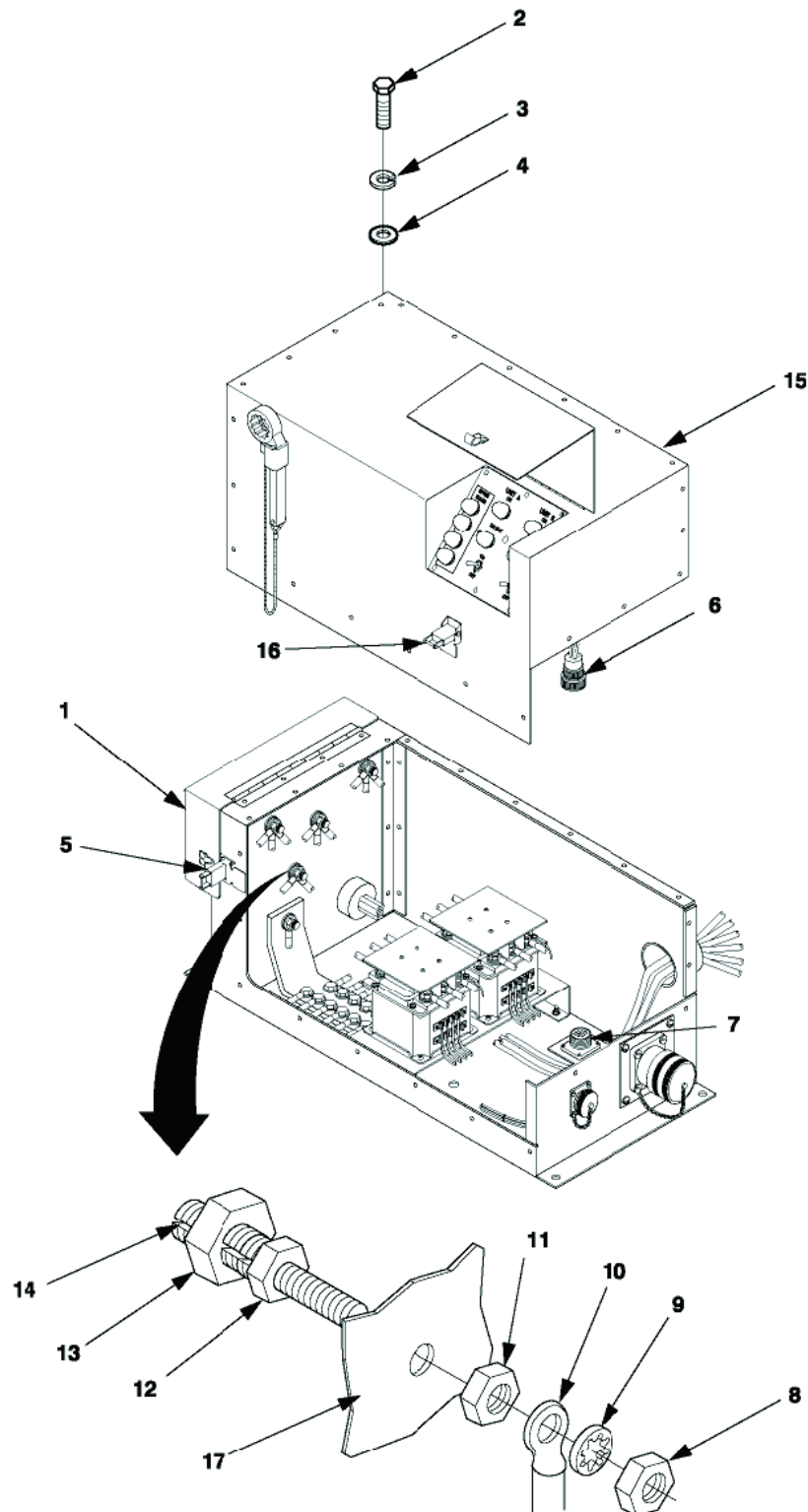


Figure 1. Switch Box Load Terminal Maintenance (A Model).

REMOVAL

1. Release clamping catch (Figure 1, Item 5) and open load terminal door (Figure 1, Item 1).
2. Remove cap screws (Figure 1, Item 2), lockwashers (Figure 1, Item 3), and flat washers (Figure 1, Item 4). Discard lockwashers (Figure 1, Item 3).

CAUTION

The control panel connector P3 is connected to connector J4. Movement of the switch box cover is limited. Slide the switch box cover from the switch box assembly carefully to prevent damage to control panel wiring harness.

3. Carefully position switch box cover (Figure 1, Item 15) in front of switch box assembly.
4. Disconnect P3 (Figure 1, Item 6) from J4 (Figure 1, Item 7).
5. Remove switch box cover (Figure 1, Item 15).
6. Disconnect external load terminal lead from defective terminal (Figure 1, Item 14).

NOTE

For removal of ground load terminal go to Step 8.

7. Remove nut (Figure 1, Item 8), internal tooth lockwasher (Figure 1, Item 9), and leads (Figure 1, Item 10) from defective load terminal (Figure 1, Item 14).
8. Remove nut (Figure 1, Item 11) that secures the load terminal (Figure 1, Item 14) to the mounting plate (Figure 1, Item 17).
9. Remove load terminal (Figure 1, Item 14).

END OF TASK**REPAIR OR REPLACEMENT****NOTE**

Repair consists of replacing a missing or damaged bail. Removal of terminal is not required. Any other damage to the terminal requires replacement. The bail is fabricated using bulk wire (Item 29, Bulk).

1. Release clamping catch (Figure 1, Item 5) and open load terminal door (Figure 1, Item 1).
2. Cut off 5-3/4 inches of bulk wire.
3. Make sure nut (Figure 1, Item 13) is installed on load terminal (Figure 1, Item 14).
4. Fabricate and install terminal clip in accordance with WP 0030, Figure 2.
5. Close load terminal door (Figure 1, Item 1) and secure with clamping catch (Figure 1, Item 5).

END OF TASK**INSTALLATION**

1. Position new load terminal (Figure 1, Item 14) on mounting plate (Figure 1, Item 17) so alignment pin fits in hole provided.
2. Install and tighten nut (Figure 1, Item 11).
3. Install leads (Figure 1, Item 10).
4. Install internal tooth lockwasher (Figure 1, Item 9) and nut (Figure 1, Item 8) on load terminal (Figure 1, Item 14).
5. Close load terminal door (Figure 1, Item 1) and secure with clamping catch (Figure 1, Item 5).
6. Position switch box cover (Figure 1, Item 15) over switch box assembly and align mounting holes.

7. Connect P3 (Figure 1, Item 6) to J4 (Figure 1, Item 7).
8. Install flat washers (Figure 1, Item 4), new lockwashers (Figure 1, Item 3), and cap screws (Figure 1, Item 2), which secure the switch box cover (Figure 1, Item 15).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
SWITCH BOX LOAD TERMINAL MAINTENANCE (B & C MODELS)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

Materials/Parts

Terminal, Load ASTM A313 TY302 CONDB ROND
0.105

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

Trailer support devices are lowered. Refer to "Positioning Power Unit/Power Plant" located in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

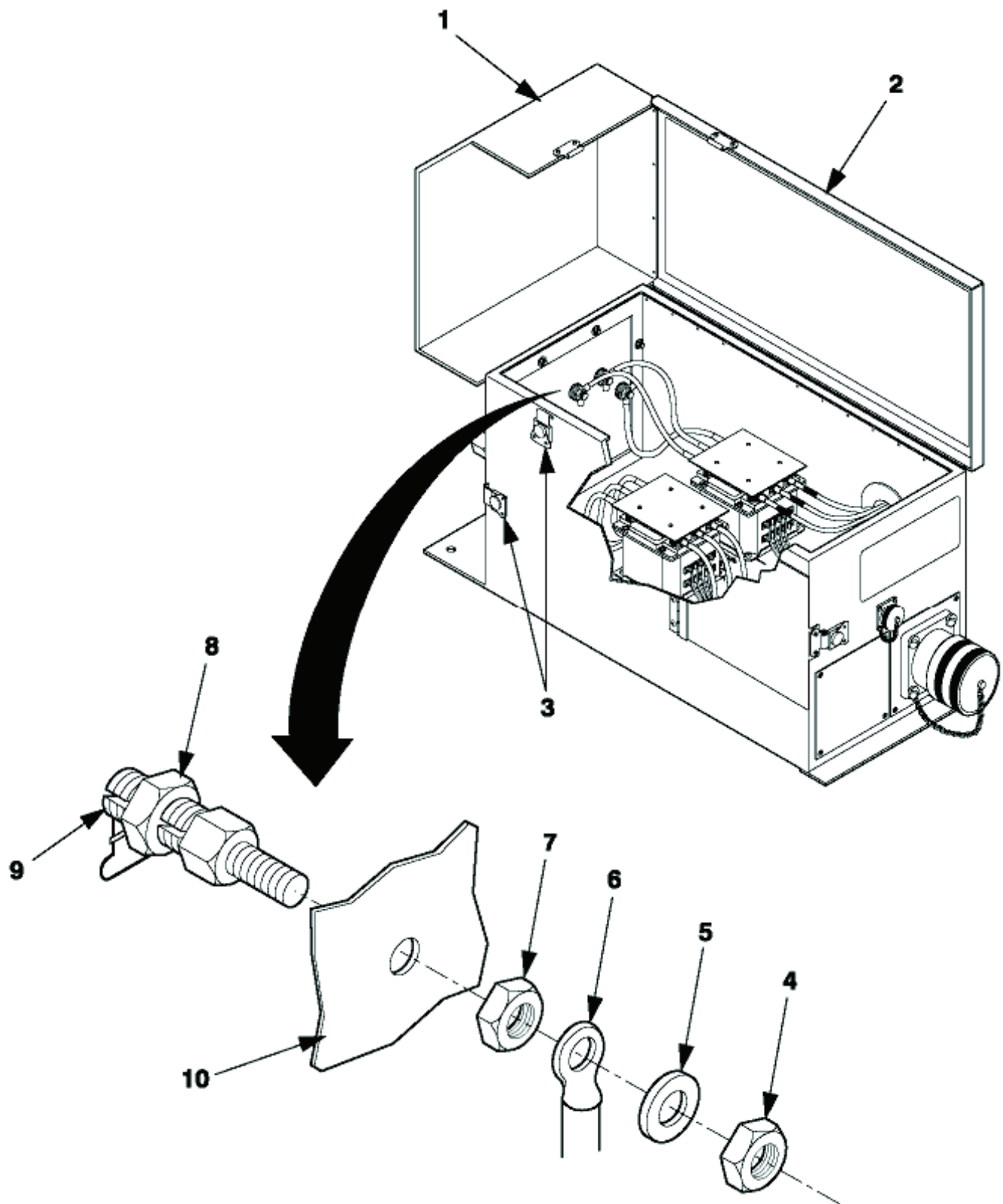


Figure 1. Switch Box Load Terminal Maintenance (B & C Models).

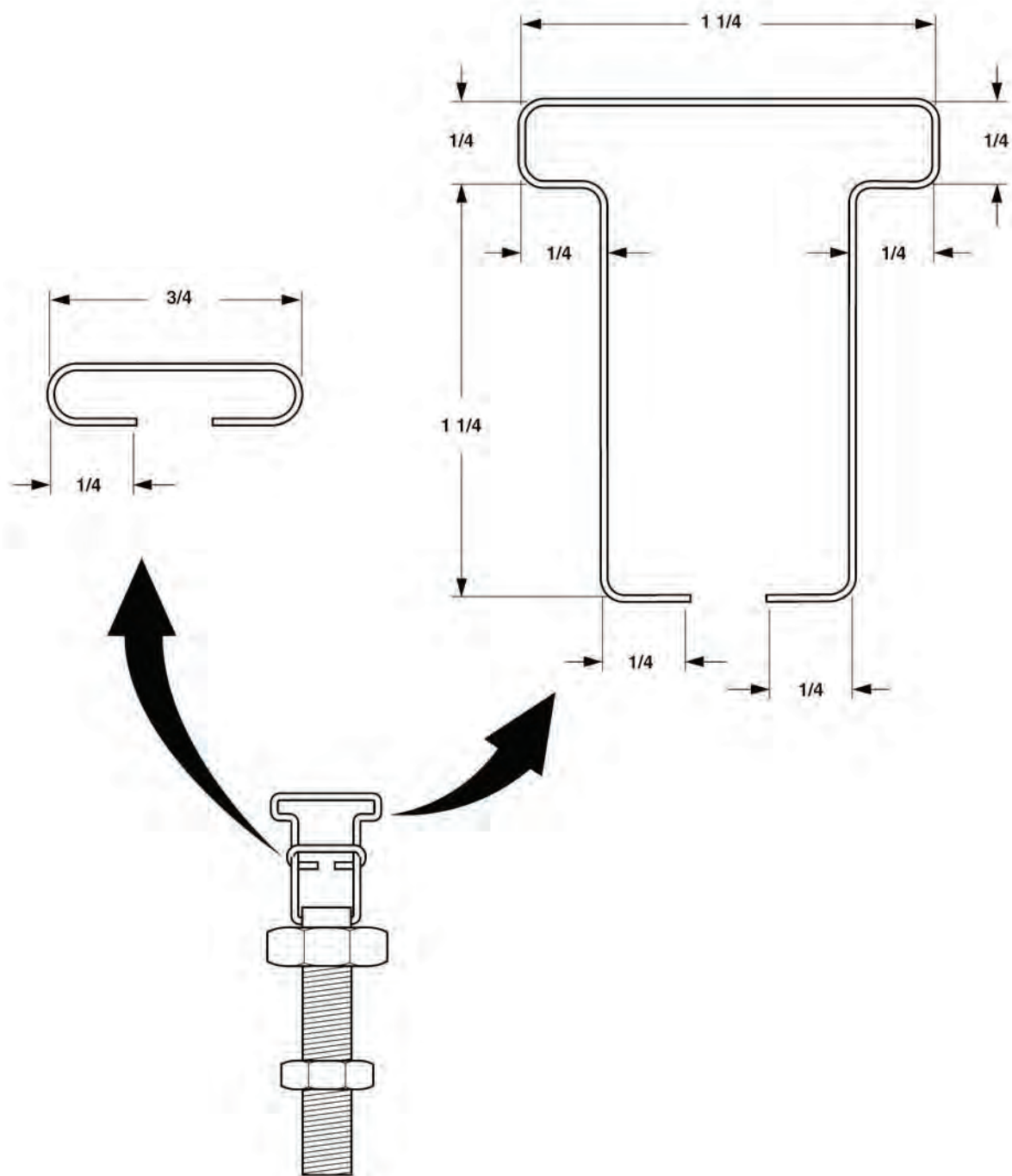


Figure 2. Switch Box Load Terminal Repair (A, B, & C Models).

REMOVAL

1. Release clamping catch (Figure 1, Item 3) and open load terminal door (Figure 1, Item 1).
2. Release clamping catch (Figure 1, Item 3) of switch box cover (Figure 1, Item 2) in front of switch box assembly.

3. Lift switch box cover (Figure 1, Item 2).
4. Disconnect external load terminal lead from defective terminal (Figure 1, Item 9).

NOTE

For removal of ground load terminal go to Step 6.

5. Remove nut (Figure 1, Item 4), tooth lockwasher (Figure 1, Item 5), and leads (Figure 1, Item 6) from defective load terminal (Figure 1, Item 9).
6. Remove nut (Figure 1, Item 7) that secures load terminal (Figure 1, Item 9) to mounting plate (Figure 1, Item 10).
7. Remove load terminal (Figure 1, Item 9).

END OF TASK

REPAIR

NOTE

Repair consists of replacing a missing or damaged bail. Removal of terminal is not required. Any other damage to the terminal requires replacement. The bail is fabricated using bulk wire (Item 29, Bulk.)

1. Release clamping catch (Figure 1, Item 3) and open load terminal door (Figure 1, Item 1).
2. Cut off 5-3/4 inches of bulk wire.
3. Make sure nut (Figure 1, Item 8) is installed on terminal load (Figure 1, Item 9).
4. Fabricate and install terminal clip in accordance with Figure 2.
5. Close load terminal door (Figure 1, Item 1) and secure with clamping catch (Figure 1, Item 3).

END OF TASK

INSTALLATION

1. Position new load terminal (Figure 1, Item 9) on mounting plate (Figure 1, Item 10) so that alignment pin fits in hole provided.
2. Install and tighten nut (Figure 1, Item 7).
3. Install leads (Figure 1, Item 6).
4. Install tooth lockwasher (Figure 1, Item 5) and nut (Figure 1, Item 4) on load terminal (Figure 1, Item 9).
5. Close load terminal door (Figure 1, Item 1) and secure with clamping catch (Figure 1, Item 3).
6. Close switch box cover (Figure 1, Item 2) of switch box assembly and secure with clamping latch (Figure 1, Item 3).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

REAR STEPS MAINTENANCE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

Materials/Parts

Locknuts

Equipment Condition

Trailer support devices are lowered. Refer to
"Positioning Power Unit/Power Plant" located in WP
0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

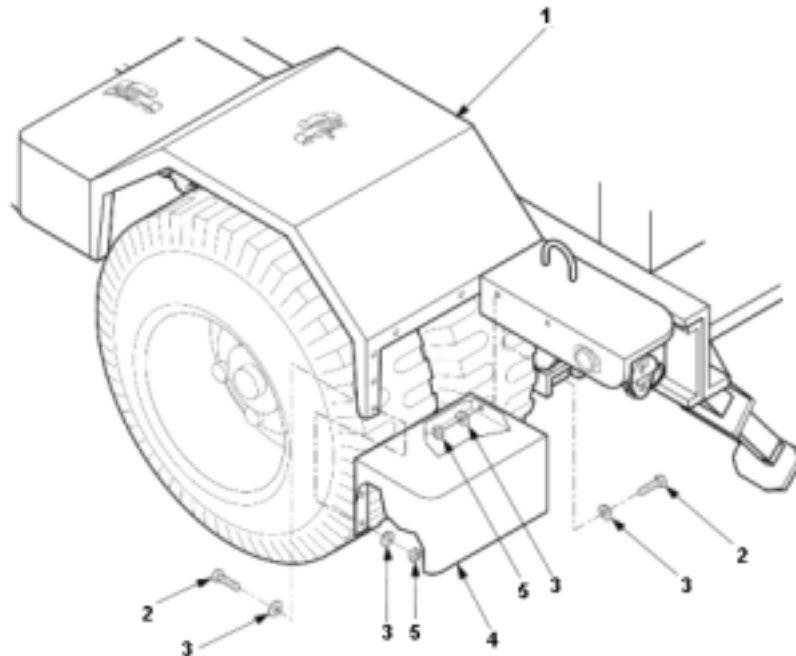


Figure 1. Rear Step Replacement (if installed).

REMOVAL

1. To remove either rear step, remove locknuts (Figure 1, Item 5), flat washers (Figure 1, Item 3), and bolts (Figure 1, Item 2) that secure rear step (Figure 1, Item 4) to trailer frame. Discard locknuts (Figure 1, Item 5).
2. Remove locknuts (Figure 1, Item 5), flat washers (Figure 1, Item 3), and bolts (Figure 1, Item 2), that secure rear step (Figure 1, Item 4) to fender (Figure 1, Item 1). Discard locknuts (Figure 1, Item 5).
3. Remove rear step (Figure 1, Item 4) from trailer.

END OF TASK**INSTALLATION**

1. Position rear step on trailer frame and align five mounting holes of the rear step (Figure 1, Item 4) and fender (Figure 1, Item 1).
2. Install bolts (Figure 1, Item 2), flat washers (Figure 1, Item 3), and new locknuts (Figure 1, Item 5) that secure rear step (Figure 1, Item 4) to fender (Figure 1, Item 1). Do not tighten bolts.
3. Install bolts (Figure 1, Item 2), flat washers (Figure 1, Item 3), and new locknuts (Figure 1, Item 5) to secure rear step (Figure 1, Item 4) to trailer frame.
4. Tighten all bolts.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

ACCESSORY BOX MAINTENANCE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's or Standard
 Automotive Tool Set (WP 0112, Table 2, Item 7)
 Drill, 1/4-inch (component of WP 0112, Table 2, Item 5)

Materials/Parts

Locknuts
 Rivets, Blind Head

References

Clamping Catch Maintenance (A Model) (WP 0025)
 Clamping Catch Maintenance (B & C Models) (WP 0026)

Equipment Condition

Trailer support devices are lowered. Refer to "Positioning Power Unit/Power Plant" located in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

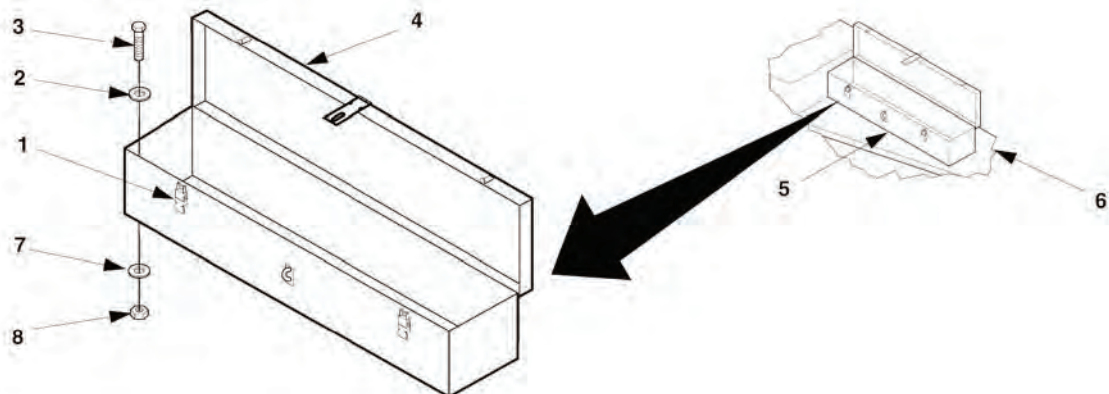


Figure 1. Accessory Box Replacement.

REMOVAL

1. Release clamping catches (Figure 1, Item 1) and open accessory box cover (Figure 1, Item 4).
2. Remove any stored accessories from accessory box (Figure 1, Item 5).
3. Remove locknuts (Figure 1, Item 8), flat washers (Figure 1, Items 2 and 7), and bolts (Figure 1, Item 3) that secure accessory box (Figure 1, Item 5) to trailer chassis (Figure 1, Item 6). Discard locknuts (Figure 1, Item 8).
4. Lift accessory box (Figure 1, Item 5) off trailer chassis (Figure 1, Item 6).

END OF TASK**REPLACE**

Refer to WP 0025 (A Model) or WP 0026 (B & C Models), and replace clamping catches.

END OF TASK**INSTALLATION**

1. Position accessory box (Figure 1, Item 5) over mounting holes in trailer chassis (Figure 1, Item 6).
2. Install bolts (Figure 1, Item 3), flat washers (Figure 1, Items 2 and 7), and new locknuts (Figure 1, Item 8) that secure accessory box (Figure 1, Item 5).
3. Store in accessory box (Figure 1, Item 5) accessories removed in Step 2 of remove.
4. Close accessory box cover (Figure 1, Item 4) and secure with clamping catches (Figure 1, Item 1).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

STRAP ASSEMBLY MAINTENANCE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

Materials/Parts

Washer, Lock

Equipment Condition

Trailer support devices are lowered. Refer to
"Positioning Power Unit/Power Plant" located in WP
0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

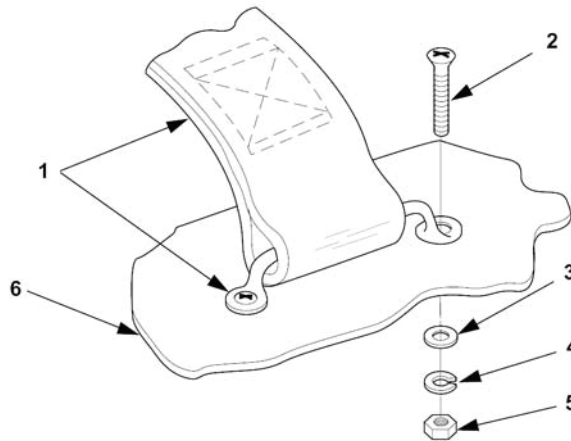


Figure 1. Strap Assembly Maintenance.

REMOVAL

1. Remove nuts (Figure 1, Item 5), lockwashers (Figure 1, Item 4), flat washers (Figure 1, Item 3), and screws (Figure 1, Item 2) that secure strap assembly (Figure 1, Item 1) to trailer chassis (Figure 1, Item 6). Discard lockwashers (Figure 1, Item 4).
2. Remove strap assembly (Figure 1, Item 1).

END OF TASK

INSTALLATION

1. Position strap assembly (Figure 1, Item 1) over mounting holes.
2. Install screws (Figure 1, Item 2), flat washers (Figure 1, Item 3), new lockwashers (Figure 1, Item 4), and nut (Figure 1, Item 5) that secure strap assembly (Figure 1, Item 1).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****FENDER MAINTENANCE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

Materials/Parts

Locknuts

Personnel Required

(2)

Equipment Condition

Trailer support devices are lowered. Refer to
"Positioning Power Unit/Power Plant" located in WP
0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Use the aid of an assistant when removing the fender, splash guard, and switch box as an assembly. Failure to comply with this warning can cause injury to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

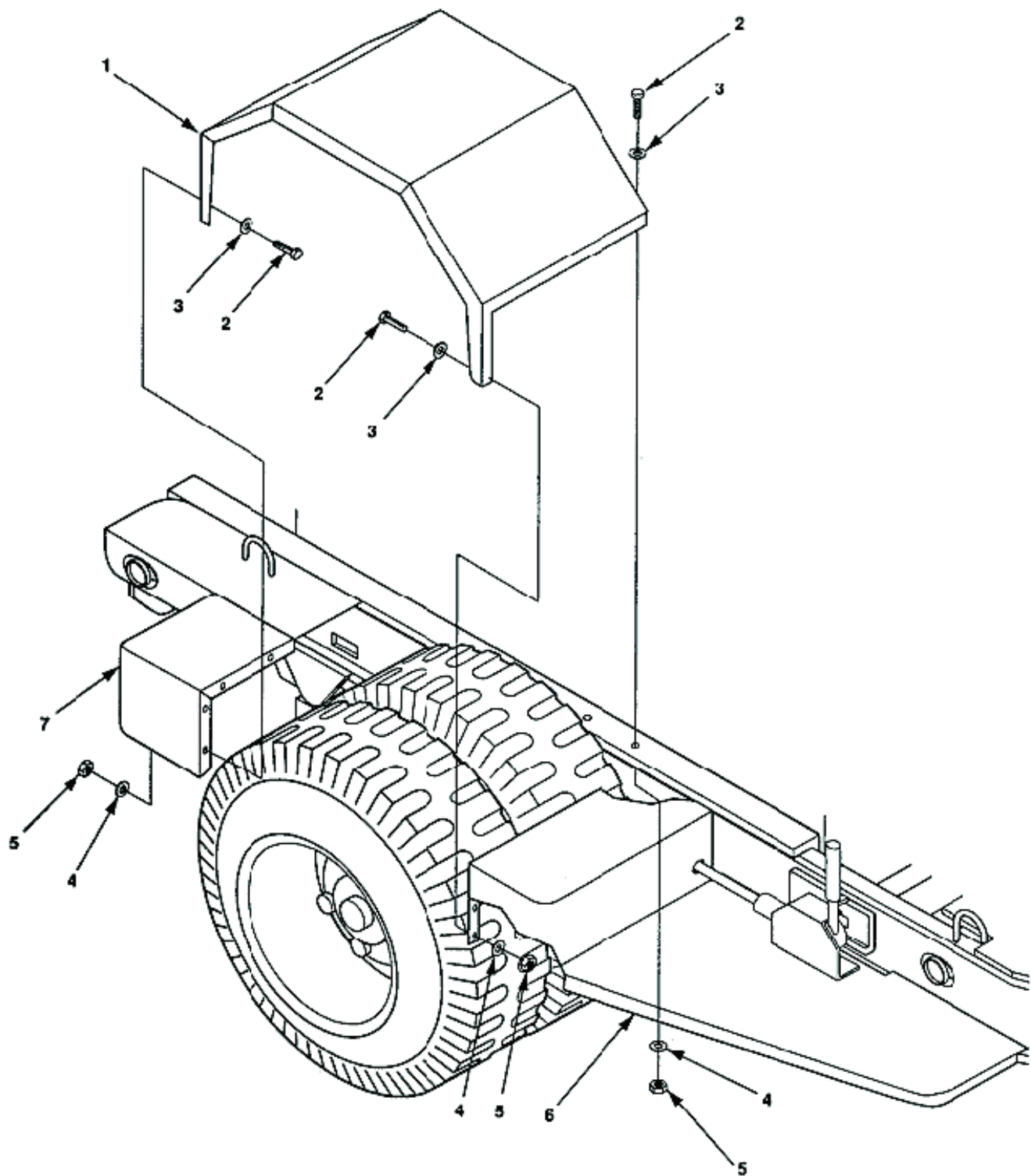


Figure 1. Fender Replacement.

REMOVAL

1. Remove seventeen locknuts (Figure 1, Item 5), flat washers (Figure 1, Item 4), bolts (Figure 1, Item 2), and flat washers (Figure 1, Item 3), securing fender (Figure 1, Item 1) to trailer frame. Discard locknuts (Figure 1, Item 5).
2. Remove fender (Figure 1, Item 1).

END OF TASK**INSTALLATION**

1. Position fender (Figure 1, Item 1) on trailer.
2. Install bolt (Figure 1, Item 2) on front step (Figure 1, Item 6) and bolt (Figure 1, Item 2) on rail (Figure 1, Item 7), leaving new locknuts (Figure 1, Item 5) loose.
3. Install fifteen bolts (Figure 1, Item 2), flat washers (Figure 1, Items 3 and 4), and new locknuts (Figure 1, Item 5). Tighten all locknuts.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****FRONT STEPS MAINTENANCE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

Materials/Parts

Cotter pin (TM 9-2330-205-14&P)
Locknuts

Personnel Required

(2)

References

Accessory Box (WP 0032)
Fire Extinguisher Bracket (WP 0037)

Equipment Condition

Trailer support devices are lowered. Refer to
"Positioning Power Unit/Power Plant" located in WP
0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

If trailer is not coupled to towing vehicle, ensure that wheels are securely chocked. Failure to comply with this warning can cause trailer to roll, resulting in injury to personnel and damage to equipment.

NOTE

The above warnings apply to all procedures listed in this work package.

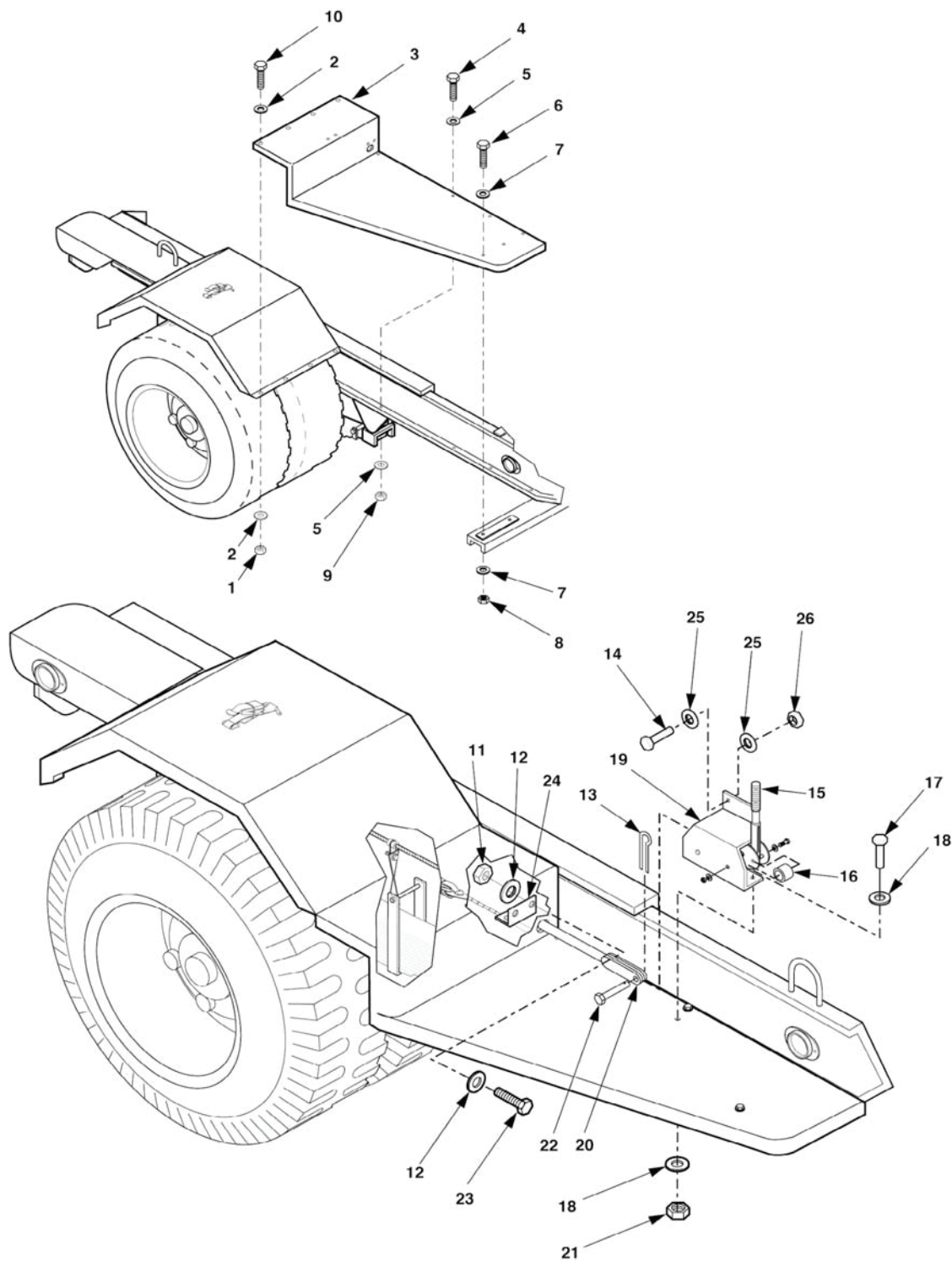


Figure 1. Front Step Replacement.

REMOVAL

1. When replacing roadside front step, remove fire extinguisher bracket (WP 0037). When replacing curbside front step, remove accessory box (WP 0032).

2. Release brake.
3. Remove cotter pin (Figure 1, Item 13), spacer (Figure 1, Item 16), and clevis pin (Figure 1, Item 22), securing handbrake cable to handbrake lever mechanism (Figure 1, Item 15). Discard cotter pin (Figure 1, Item 13).
4. Remove locknuts (Figure 1, Item 26), flat washers (Figure 1, Item 25), and cap screws (Figure 1, Item 14) which secure handbrake bracket (Figure 1, Item 19) to trailer frame. Discard locknuts (Figure 1, Item 26).
5. Remove locknuts (Figure 1, Item 21), flat washers (Figure 1, Item 18), and cap screws (Figure 1, Item 17), securing handbrake bracket (Figure 1, Item 19) to front step (Figure 1, Item 3). Discard locknuts (Figure 1, Item 21).
6. Remove handbrake bracket (Figure 1, Item 19) and handbrake mechanism (Figure 1, Item 15).
7. Remove locknuts (Figure 1, Item 11), flat washers (Figure 1, Item 12), and cap screws (Figure 1, Item 23), which secure brake cable bracket (Figure 1, Item 24) to front step (Figure 1, Item 3). Remove clevis (Figure 1, Item 20). Discard locknuts (Figure 1, Item 11).
8. Remove locknuts (Figure 1, Item 1), flat washers (Figure 1, Item 2), and cap screws (Figure 1, Item 10), securing front step (Figure 1, Item 3) to front edge of fender. Discard locknuts (Figure 1, Item 1).
9. Remove locknuts (Figure 1, Item 9), flat washers (Figure 1, Item 5), and cap screws (Figure 1, Item 4), securing front step (Figure 1, Item 3) to trailer frame. Discard locknuts (Figure 1, Item 9).
10. Remove locknuts (Figure 1, Item 8), flat washers (Figure 1, Item 7), and cap screws (Figure 1, Item 6), securing front step (Figure 1, Item 3) to chassis. Discard locknuts (Figure 1, Item 8).
11. Remove front step (Figure 1, Item 3).

END OF TASK

INSTALLATION

1. Position front step (Figure 1, Item 3) on cross braces and trailer frame. Insert handbrake clevis (Figure 1, Item 20) through hole in front step (Figure 1, Item 3).
2. Install cap screws (Figure 1, Item 6), flat washers (Figure 1, Item 7), and new locknuts (Figure 1, Item 8), which secure front step (Figure 1, Item 3) to chassis.
3. Install cap screws (Figure 1, Item 4), flat washers (Figure 1, Item 5), and new locknuts (Figure 1, Item 9), which secure front step (Figure 1, Item 3) to trailer frame.
4. Install cap screws (Figure 1, Item 10), flat washers (Figure 1, Item 2), and new locknuts (Figure 1, Item 1), which secure front step (Figure 1, Item 3) to fender.
5. Install cap screws (Figure 1, Item 23), flat washers (Figure 1, Item 12), and new locknuts (Figure 1, Item 11), which secures brake cable bracket (Figure 1, Item 24) to front step (Figure 1, Item 3).
6. Position handbrake bracket (Figure 1, Item 19) and handbrake lever mechanism (Figure 1, Item 15) on front step (Figure 1, Item 3).
7. Install cap screws (Figure 1, Item 17), flat washers (Figure 1, Item 18), and new locknuts (Figure 1, Item 21), which secure hand break bracket (Figure 1, Item 19) and hand break mechanism (Figure 1, Item 15) to front step (Figure 1, Item 3).
8. Install cap screws (Figure 1, Item 14), flat washers (Figure 1, Item 25), and new locknuts (Figure 1, Item 26) which secure hand break bracket (Figure 1, Item 19) to trailer frame.
9. Position handbrake cable to handbrake mechanism (Figure 1, Item 15) and install clevis pin (Figure 1, Item 22), spacer (Figure 1, Item 16), and secure with new cotter pin (Figure 1, Item 13).
10. Install either fire extinguisher bracket or accessory box removed in Step 1. Refer to WP 0032 to install accessory box. Install fire extinguisher bracket (WP 0037).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****FRONT PLATFORM MAINTENANCE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

Materials/Parts

Locknuts
Lockwashers

Personnel Required

(2)

References

Switch Box Assembly Maintenance (A Model) (WP 0021)
Group 04 Front Platform (WP 0103)

Equipment Condition

Trailer support devices are lowered. Refer to
"Positioning Power Unit/Power Plant" located in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

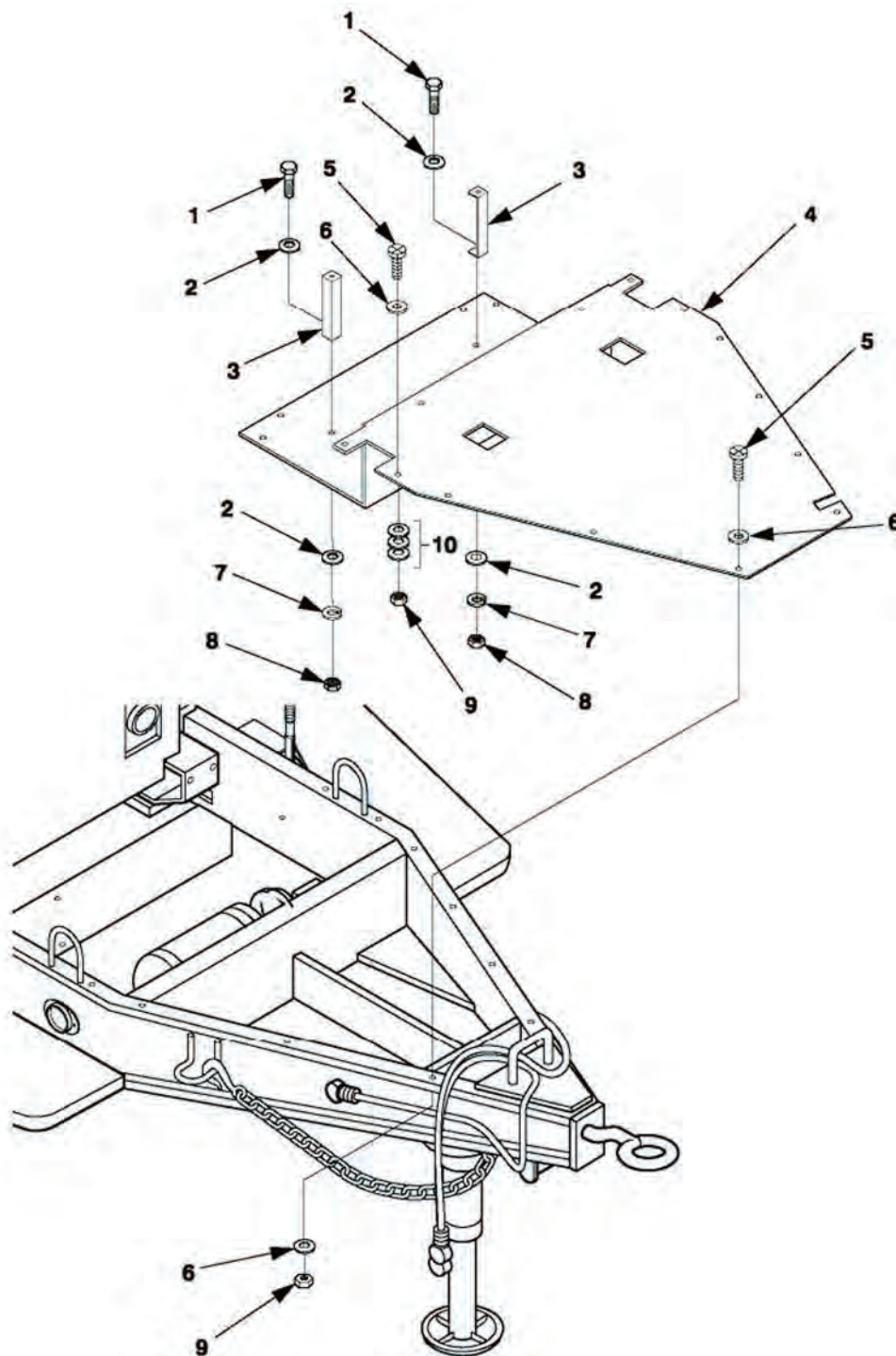


Figure 1. Front Platform Replacement , 2 ½ Ton Trailer (Older Model).

NOTE

This platform (Figure 1) is used with power plants equipped with older model switch boxes.

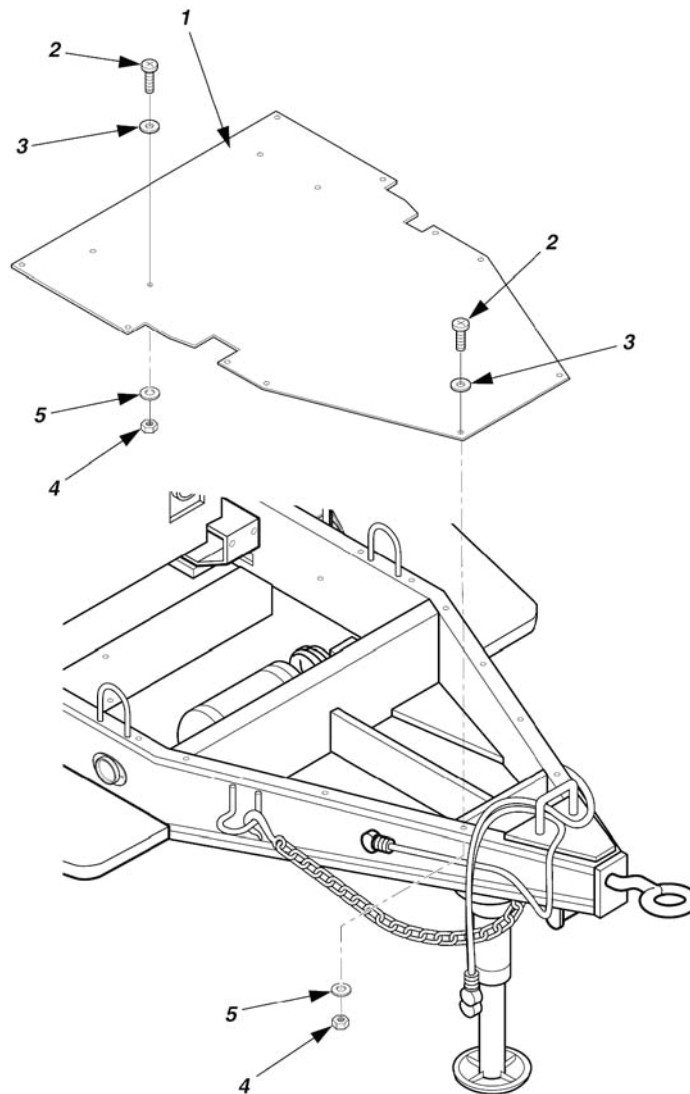


Figure 2. Front Platform Replacement, 2 ½ Ton Trailer (Newer Model).

NOTE

This newer model platform is used with power plants with modified trailer.

NOTE

This platform (Figure 2) comes with drill holes to accommodate Unit A. Unit B platform does not contain drill holes.

REMOVAL

1. Older Version:
 - a. When removing front platform (Figure 1, Item 4) on Unit A, refer to WP 0021 and remove switch box.
 - b. To remove switch box supports (Figure 1, Item 73) from the older model platform, remove hex nuts (Figure 1, Item 8), flat washers (Figure 1, Item 2), lockwashers (Figure 1, Item 7), and cap screws (Figure 1, Item 1) which secure switch box supports (Figure 1, Item 3). Discard lockwashers (Figure 1, Item 7).

- c. To remove the platform from the trailer, remove locknuts (Figure 1, Item 9), flat washers (Figure 1, Items 6 and 10), and cap screws (Figure 1, Item 5) which secure the platform (Figure 1, Item 4) to trailer. Discard locknuts (Figure 1, Item 9).
2. Newer Version:
 - a. When removing front platform on Unit A, refer to WP 0021 and remove switch box.
 - b. Remove hex nuts (Figure 2, Item 4), flat washers (Figure 2, Item 3), lockwashers (Figure 2, Item 5), and cap screws (Figure 2, Item 2). Discard lockwashers (Figure 2, Item 5).
 - c. To remove the platform from trailer, remove hex nuts (Figure 2, Item 4), flat washers (Figure 2, Item 3), lockwashers (Figure 2, Item 5), and cap screws (Figure 2, Item 2), which secure new platform (Figure 2, Item 1) to trailer. Discard lockwashers (Figure 2, Item 5).

NOTE

Refer to RPSTL illustration WP 0103 for pictorial differences in front platform.

3. Remove front platform.

END OF TASK

INSTALLATION

1. Older Version:
 - a. Position new front platform (Figure 1, Item 4) on trailer over mounting holes.
 - b. Install cap screws (Figure 1, Item 5), flat washers (Figure 1, Items 6 and 10), and new locknuts (Figure 1, Item 9) to secure platform (Figure 1, Item 4) to trailer.
 - c. Install cap screws (Figure 1, Item 1), new lockwashers (Figure 1, Item 7), flat washers (Figure 1, Item 2), and hex nuts (Figure 1, Item 8), which secures switch box supports (Figure 1, Item 3).
 - d. When replacing front platform for Unit A, refer to WP 0021 and install switch box assembly.
2. Newer Version:
 - a. Position front platform (Figure 2, Item 1) on trailer over mounting holes.
 - b. Install cap screws (Figure 2, Item 2), flat washers (Figure 2, Item 3), new lockwashers (Figure 2, Item 5), and hex nuts (Figure 2, Item 4) to secure platform (Figure 2, Item 1) to trailer.
 - c. Install cap screws (Figure 2, Item 2), flat washers (Figure 2, Item 3), new lockwashers (Figure 2, Item 5), and hex nuts (Figure 2, Item 4) which secures switch box assembly.

NOTE

Refer to RPSTL illustration WP 0103 for pictorial differences on front platform.

- d. When replacing front platform for Unit A, refer to WP 0021 and install switch box assembly.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****FIRE EXTINGUISHER BRACKET MAINTENANCE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7) (1)

Materials/Parts

Locknuts

Equipment Condition

Trailer handbrakes set, front support leg/landing leg
lowered, and rear leveling support jack lowered.
Refer to "Positioning Power Unit/Power Plant"
located in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

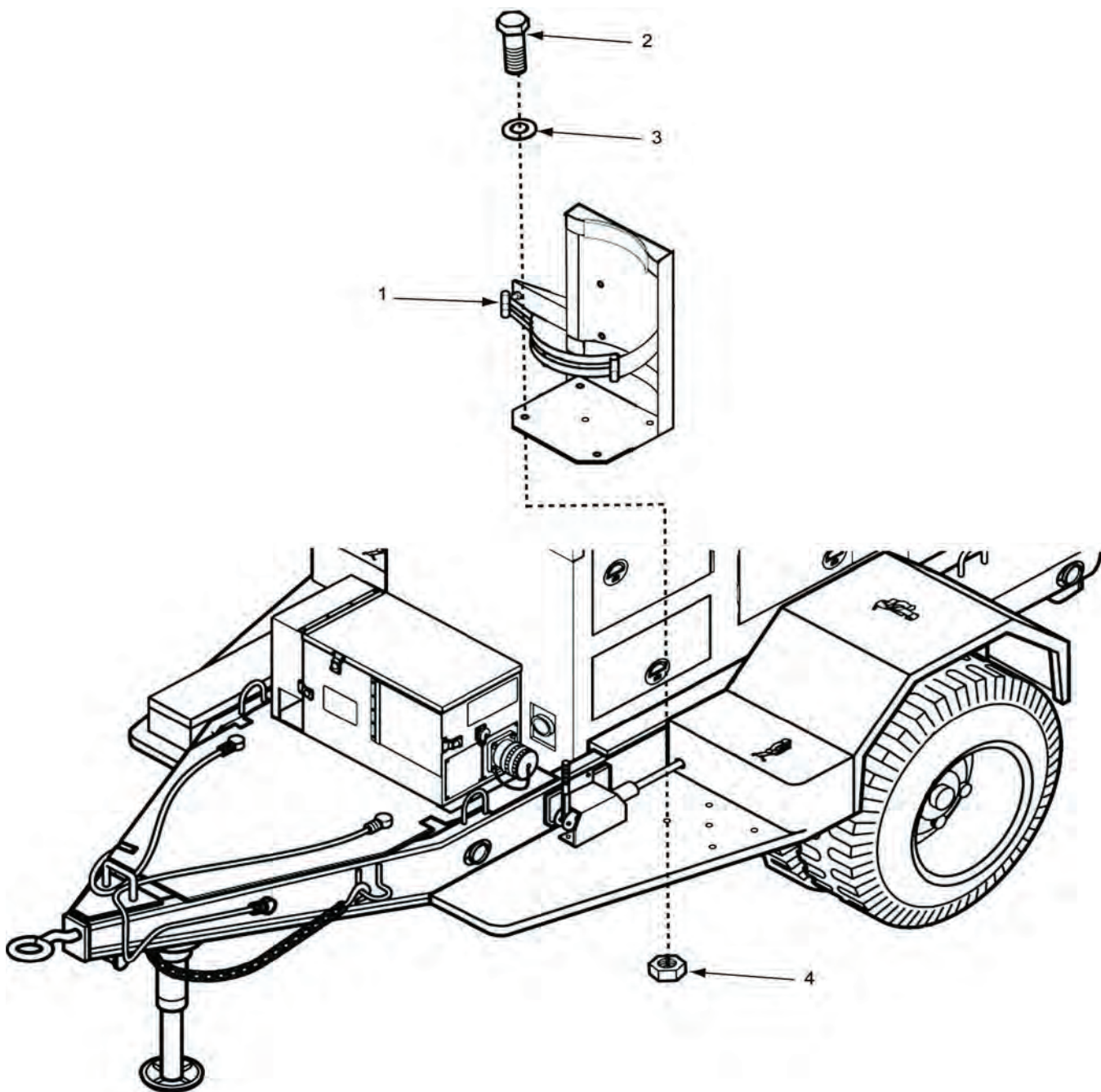


Figure 1. Fire Extinguisher Bracket.

REMOVAL

1. Remove fire extinguisher from bracket (Figure 1, Item 1).
2. Remove locknuts (Figure 1, Item 4), flat washers (Figure 1, Item 3), and cap screws (Figure 1, Item 2). Remove fire extinguisher bracket (Figure 1, Item 1) from fender. Discard locknuts (Figure 1, Item 4).

END OF TASK

INSTALLATION

1. Install fire extinguisher bracket (Figure 1, Item 1), cap screws (Figure 1, Item 2), flat washers (Figure 1, Item 3), and new self-locking nuts (Figure 1, Item 4). Tighten locknuts (Figure 1, Item 4).
2. Place fire extinguisher in bracket (Figure 1, Item 1).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
SWITCH BOX ASSEMBLY MAINTENANCE (A, B, & C MODELS)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)
Multimeter, AN/PSM-45A (WP 0112, Table 2, Item 3)
120VAC Power Source (WP 0112, Table 2, Item 1)

Materials/Parts

Washers, Lock

References

Switch Box Assembly (A Model) (WP 0021)
Switch Box Assembly (B & C Models) (WP 0022)
Wiring Harness (A Model) (WP 0039)
Wiring Harness (B & C Models) (WP 0040)
Electrical Leads (A Model) (WP 0041)
Electrical Leads (B & C Models) (WP 0042)
Bus Bar (A Model) (WP 0043)
Contactor (A Model) (WP 0044)
Contactor (B & C Models) (WP 0045)

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.
Trailer support devices are lowered. Refer to "Positioning Power Unit/Power Plant" located in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

REPLACE

Refer to WP 0021 and WP 0022 to remove and install switch box assembly.

END OF TASK

REPAIR

Repair is accomplished by identifying the fault and determining the proper procedure for returning the switch box to operational status.

END OF TASK**TESTING**

Test (A Model)

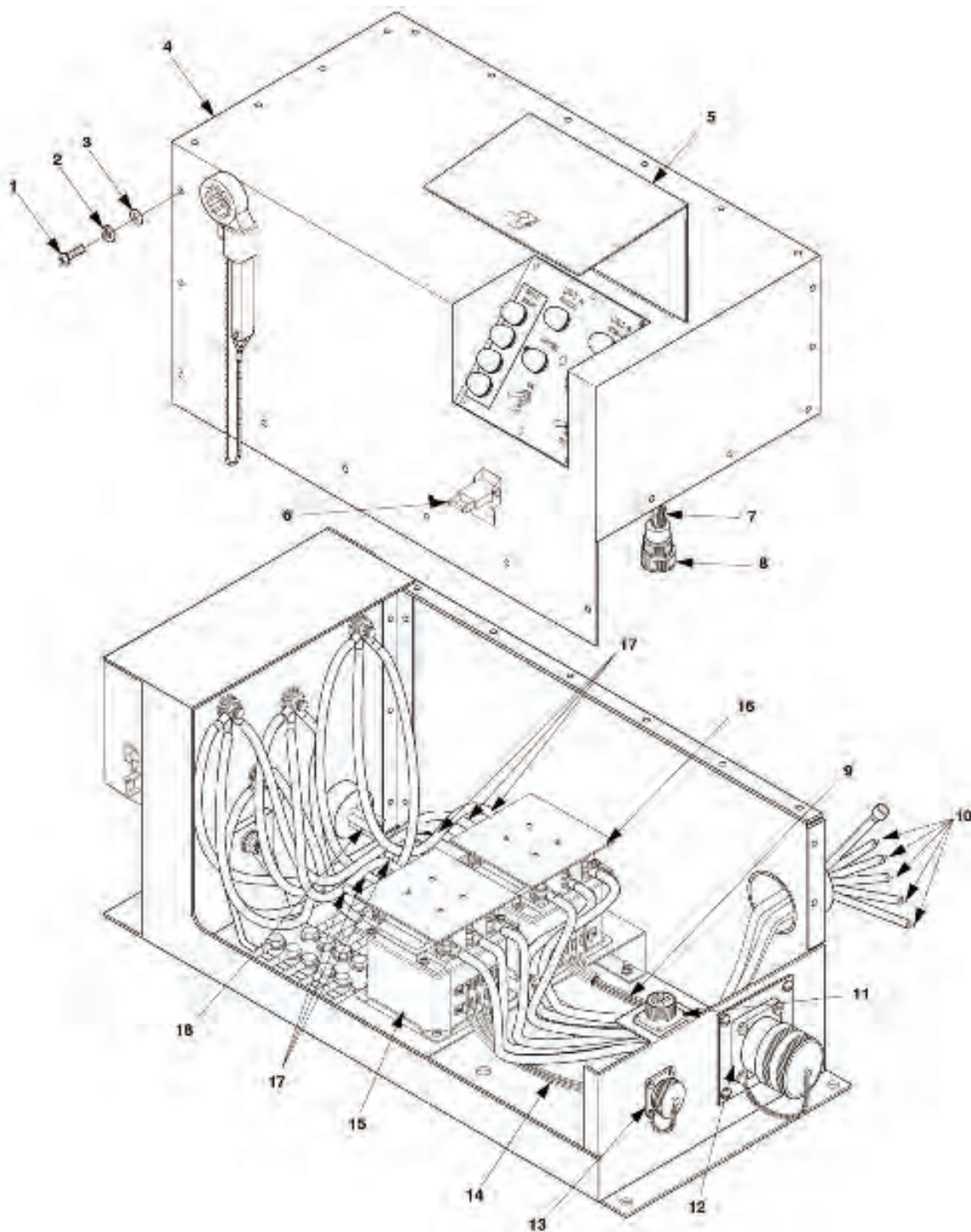


Figure 1. Switch Box Assembly Test (A Model).

1. Disassemble switch box assembly for test as follows:
 - a. Remove 21 screws (Figure 1, Item 1), flat washers (Figure 1, Item 3), and lockwashers (Figure 1, Item 2) that secure the switch box cover (Figure 1, Item 4) to the switch box assembly. Discard lockwashers (Figure 1, Item 2).

CAUTION

The control panel connector P3 is connected to connector J4. Movement of the switch box cover is limited. To prevent damage to control panel wiring harness, use caution removing switch box cover. Failure to observe this caution could result in equipment damage.

- b. Carefully position switch box cover (Figure 1, Item 4) in front of switch box.
 - c. Disconnect P3 (Figure 1, Item 8) from J4 (Figure 1, Item 11) and set switch box cover (Figure 1, Item 4) out of the way.
2. Remove two lamps for Unit A and two lamps for Unit B from switch box control panel.
 3. Refer to power plant wiring diagram (FO-1) for identification of components inside switch box assembly and check.
 - a. Refer to Table 1 and check continuity of wiring harness W20 (Figure 1, Item 7).

Table 1. Wiring Harness W20.

Wire Number	From	To
1	XDS1-1	P3-A
2	XDS1-2	P3-B
3	XDS3-2	P3-C
4	S1-3	P3-D
5	S1-5	P3-F
6	S1-6	P3-G
7	S2-6	P3-H
8	S2-5	P3-I
9	S2-3	P3-K
10	XDS4-2	P3-L
11	XDS2-1	P3-M
12	XDS2-2	P3-N
13	S1-3	XDS3-1
14	S2-3	XDS4-1

- b. Remove electrical connector cover; refer to Table 2 and check continuity of wiring harness W9 (Figure 1, Item 18).

NOTE

The bus bar is physically connected to L0 of the switch box assembly and is a common ground. Wires connected to bus bar may be connected to any terminal on the bus bar.

Table 2. Wiring Harness W9.

Wire Number	From	To
1	J1-A	L1
2	J1-B	L2
3	J1-C	L3

Table 2. Wiring Harness W9. - Continued

Wire Number	From	To
4	J1-N	L0
5	J1-G1	BUS BAR
6	J1-G2	BUS BAR
7	J1-G3	BUS BAR
8	J1-G4	BUS BAR

- c. Refer to Table 3 and check continuity of wiring harness W10 (Figure 1, Item 12).

Table 3. Wiring Harness W10.

Wire Number	From	To
1	J2-A	K2-A1
2	J2-B	K2-B1
3	J2-C	K2-C1
4	J2-N	L0
5	J2-G1	BUS BAR
6	J2-G2	BUS BAR
7	J2-G3	BUS BAR
8	J2-G4	BUS BAR

- d. Refer to Table 4 and check continuity of wiring harness W17 (Figure 1, Item 13).

Table 4. Wiring Harness W17.

Wire Number	From	To
1	J3-A	K2-12
2	J3-B	K2-Y
3	J3-E	BUS BAR

- e. Refer to Table 5 and check continuity of wiring harness W18 (Figure 1, Item 9).

Table 5. Wiring Harness W18.

Wire Number	From	To
1	P1-A	K1-12
2	P1-B	K1-Y
3	P1-E	BUS BAR

NOTE

The cannon electrical plug connector for the W7 wiring harness is small. Ensure that multimeter leads are making good contact with the pins of the electrical plug connector.

- f. Refer to Table 6 and check continuity of wiring harness W7 (Figure 1, Item 14).

Table 6. Wiring Harness W7.

Wire Number	From	To
1	K1-A	J4-A
2	Switch Box Assembly L0	J4-B
3	K1-Y	J4-C
4	K1-X	J4-D
5	K1-11	J4-F
6	K1-12	J4-G
7	K2-12	J4-H
8	K2-11	J4-I
9	K2-X	J4-K
10	K2-Y	J4-L
11	K2-A1	J4-M
12	Switch Box Assembly L0	J4-N

- g. Refer to Table 7 and check continuity for each power lead, W1 through W5 (Figure 1, Item 10).

Table 7. Input Power Leads.

Wire Identification	From	To
W1	K1-A1	Unit A Generator Set L1
W2	K1-B1	Unit A Generator Set L2
W3	K1-C1	Unit A Generator Set L3
W4	Switch Box Assembly L0	Unit A Generator Set L0(N)
W5	BUS BAR	Unit A Generator Set GND

- h. Refer to Table 8 and check continuity for each power lead, W11 through W16 (Figure 1, Item 17).

Table 8. Output Power Leads.

Wire Identification	From	To
W11	K1-A2	Switch Box Assembly L0
W12	K1-B2	Switch Box Assembly L0
W13	K1-C2	Switch Box Assembly L0
W14	K2-A2	Switch Box Assembly L0
W15	K2-B2	Switch Box Assembly L0
W16	K2-C2	Switch Box Assembly L0

4. Test contactor as follows:

- a. Using a multimeter, test contactor K1 (Figure 1, Item 15) as follows:

- (1) Refer to Figure 3 and perform the following continuity checks. If any multimeter indication is not correct, replace contactor (WP 0044).

Table 9. Lead Placement.

Contactor Terminals	Multimeter Indication
32 and 33	continuity
21 and 22	open circuit
11 and 12	open circuit
A1 and A2	open circuit
B1 and B2	open circuit
C1 and C2	open circuit
A1 and B1	open circuit
B1 and C1	open circuit
C1 and A1	open circuit

WARNING

Dangerous voltage exists on live circuits. Always observe precautions and never work alone. Failure to comply with this warning can cause injury or death to personnel.

- (2) Connect 120 Vac power source to terminals X and Y of contactor.
- (3) Turn on power source.
- (4) Listen for sound of contactor operation; if necessary, have second person listen for contactor operation.
- (5) Perform following continuity checks. If any multimeter indication is not correct, replace contactor (WP 0044).

Table 10. Lead Placement.

Contactor Terminals	Multimeter Indication
32 and 33	open circuit
21 and 22	continuity
11 and 12	continuity
A1 and A2	continuity
B1 and B2	continuity
C1 and C2	continuity
A1 and B1	open circuit
B1 and C1	open circuit
C1 and A1	open circuit

- (6) Measure resistance across terminals X and Y of contactor.
- (7) Turn off power source and disconnect lines connected in Step a (2).
- b. Repeat Steps a(1) through a(7) for contactor K2 (Figure 1, Item 16).
5. Install two lamps for Unit A and two lamps for Unit B into switch box control panel.

6. Reassemble switch box assembly as follows:
 - a. Refer to WP 0039 through WP 0045 and repair or replace any defective parts.
 - b. Carefully position switch box cover (Figure 1, Item 4) in front of switch box.
 - c. Connect P3 (Figure 1, Item 8) to J4 (Figure 1, Item 11) and place switch box cover (Figure 1, Item 4) on the switch box assembly.
 - d. Install 21 screws (Figure 1, Item 1), flat washers (Figure 1, Item 3), and new lockwashers (Figure 1, Item 2) that secure the switch box cover (Figure 1, Item 4) to the switch box assembly.

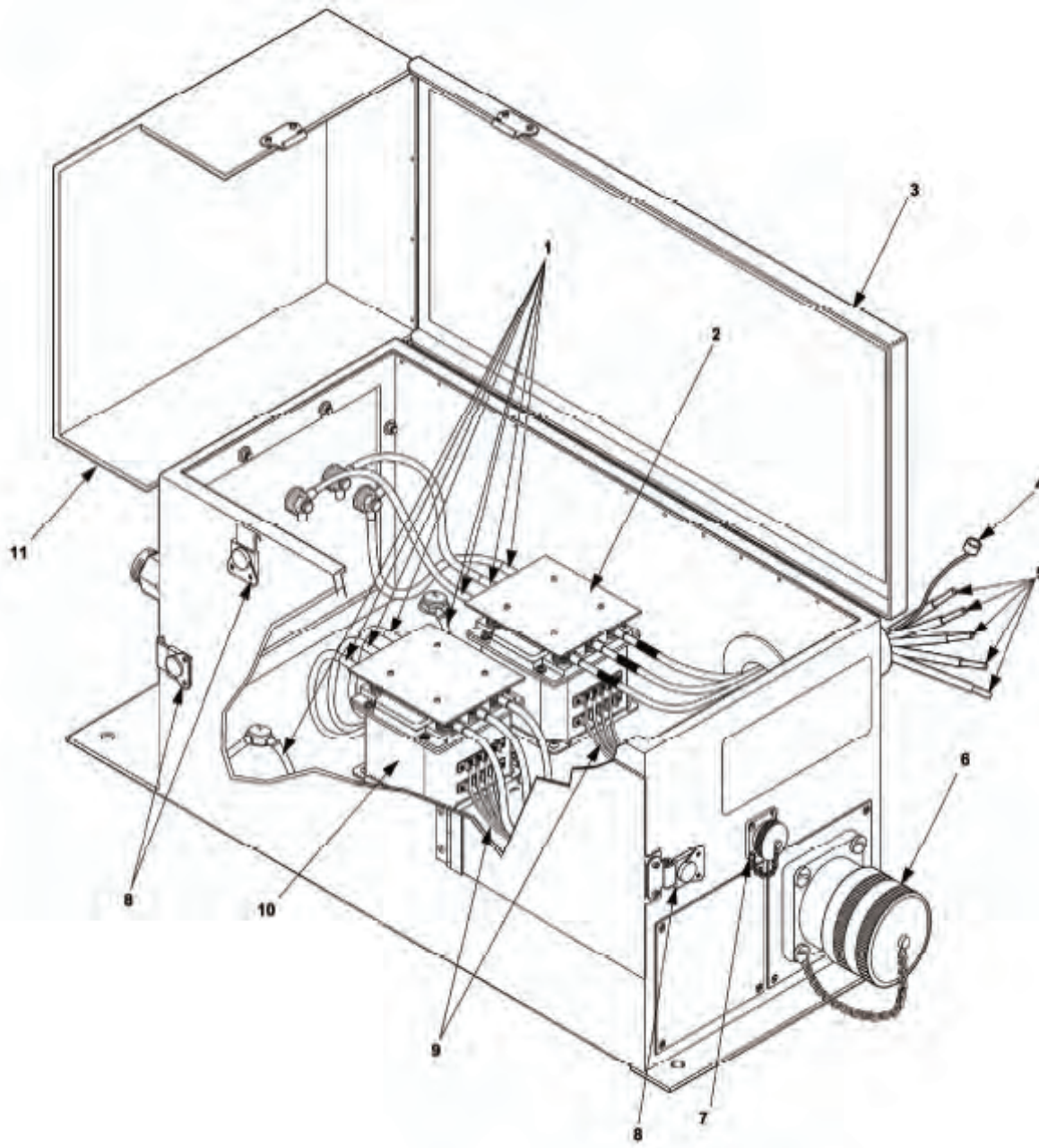


Figure 2. Switch Box Assembly Test (B & C Models).

Test (B & C Model)

1. Release clamping catches (Figure 2, Item 8), on switch box cover (Figure 2, Item 4) and load terminal cover

(Figure 2, Item 11). Lift switch box cover (Figure 2, Item 3).

2. Refer to power plant wiring diagram (FO-1) for identification of components inside switch box assembly and check.
 - a. Refer to Table 11, and check continuity of wiring harness W7 (Figure 2, Item 9).

Table 11. Wiring Harness W7.

Wire Number	From	To
1	XDS1-1	K1-A1
2	XDS1-2	Switch Box Assembly N
3	XDS3-2	
4	S1-3	K1-X
5	S1-5	K1-11
6	S1-6	K1-12
7	S2-6	K2-12
8	S2-5	K2-11
9	S2-3	K2-X
10	XDS4-2	K2-Y
11	XDS2-1	K2-A1
12	XDS2-2	Switch Box Assembly N
13	S1-3	
14	S2-3	XDS4-1
15	GND	GND 1

- b. Refer to Table 12 and check continuity of wiring harness W10 (Figure 2, Item 6).

Table 12. Wiring Harness W10.

Wire Number	From	To
1	J2-A	K2-A1
2	J2-B	K2-B1
3	J2-C	K2-C1
4	J2-N	N
5	J2-G1	GND 2
6	J2-G2	GND 2
7	J2-G3	GND 2
8	J2-G4	GND 2

- c. Refer to Table 13 and check continuity of wiring harness W17 (Figure 2, Item 7).

Table 13. Wiring Harness W17.

Wire Number	From	To
1	J3-A	K2-12

Table 13. Wiring Harness W17. - Continued

Wire Number	From	To
2	J3-B	K2-Y
3	J3-E	GND 2

- d. Refer to Table 14 and check continuity of wire harness W18 (Figure 2, Item 4).

Table 14. Wiring Harness W18.

Wire Number	From	To
1	P1-A	K1-12
2	P1-B	K1-Y
3	P1-E	GND 2

- e. Refer to Table 15 and check continuity of wiring harness W-1 through W-5 (Figure 2, Item 5).

Table 15. Input Power Leads.

Wire Identification	From	To
W1	K1-A1	Unit A Generator Set L1
W2	K1-B1	Unit A Generator Set L2
W3	K1-C1	Unit A Generator Set L3
W4	Switch Box Assembly N	Unit A Generator Set N
W5	GND 1	Unit A Generator Set GND

- f. Refer to Table 16 and check continuity for each power lead, W-11 through W-16, W21, W22 (Figure 2, Item 1).

Table 16. Output Power Leads/Ground Leads.

Wire Identification	From	To
W11	K1-A2	Switch Box Assembly L1
W12	K1-B2	Switch Box Assembly L2
W13	K1-C2	Switch Box Assembly L3
W14	K2-A2	Switch Box Assembly L1
W15	K2-B2	Switch Box Assembly L2
W16	K2-C2	Switch Box Assembly L3
W21	GND1	GND2
W22	GND1	GND

3. Test contactor as follows:

- a. Using a multimeter, test contactor K1 (Figure 2, Item 10) as follows:

- (1) Refer to Figure 3 and perform the following continuity checks. If any multimeter indication is not correct, replace contactor (WP 0045).

Table 17. Lead Placement.

Contactor Terminals	Multimeter Indication
32 and 33	continuity
21 and 22	open circuit
11 and 12	open circuit
A1 and A2	open circuit
B1 and B2	open circuit
C1 and C2	open circuit
A1 and B1	open circuit
B1 and C1	open circuit
C1 and A1	open circuit

- (2) Connect 120VAC power source to terminals X and Y of contactor.

WARNING

Dangerous voltage exists on live circuits. Always observe precautions and never work alone. Failure to comply with this warning can cause injury or death to personnel.

- (3) Turn on power source.
- (4) Listen for sound of contactor operation; if necessary, have second person listen for contactor operation.
- (5) Perform following continuity checks. If any multimeter indication is not correct, replace contactor (WP 0045).

Table 18. Lead Placement.

Contactor Terminals	Multimeter Indication
32 and 33	open circuit
21 and 22	continuity
11 and 12	continuity
A1 and A2	continuity
B1 and B2	continuity
C1 and C2	continuity
A1 and B1	open circuit
B1 and C1	open circuit
C1 and A1	open circuit

- (6) Measure resistance across terminals X and Y of contactor.
- (7) Turn off power source and disconnect lines connected in Step a (2).
- b. Repeat Steps a(1) through a(7) for contactor K2 (Figure 2, Item 2).
4. Reassemble switch box assembly as follows:
- a. Refer to WP 0039 through WP 0045 and repair or replace any defective parts.
- b. Close the switch box cover (Figure 2, Item 3) and secure clamping catches (Figure 2, Item 8).

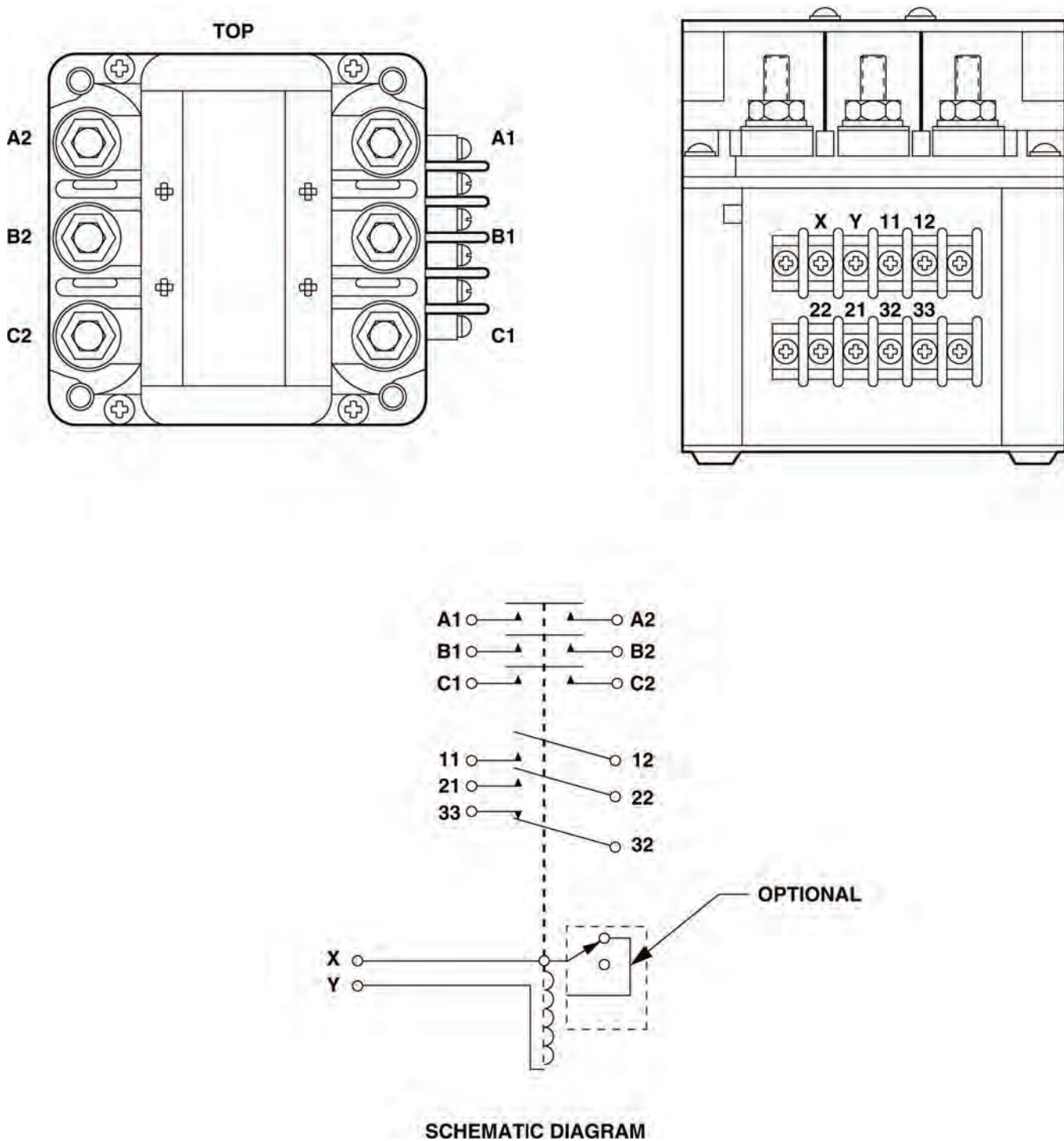


Figure 3. Contactor Test Points (A, B, & C Models).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****WIRING HARNESS MAINTENANCE (A MODEL)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)
Crimp Tool (component of WP 0112, Table 2, Item 6)

Materials/Parts

Washers, Lock

References

Switch Box Assembly (A, B, & C Models) (WP 0038)
Illustrated List of Manufactured Items (WP 0050)
Wiring Diagram (FO-1)

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

REMOVAL

1. Remove screws (WP 0038, Figure 1, Item 1), lockwashers (WP 0038, Figure 1, Item 2), and flat washers (WP 0038, Figure 1, Item 3) that secure the switch box cover (WP 0038, Figure 1, Item 4) to switch box assembly. Discard lockwashers (WP 0038, Figure 1, Item 2).

CAUTION

The control panel connector P3 is connected to connector J4. Movement of the switch box cover is limited. To prevent damage to control panel wiring harness, use caution removing switch box cover. Failure to observe this caution could result in equipment damage.

2. Carefully position switch box cover (WP 0038, Figure 1, Item 4) in front of switch box assembly.

3. Disconnect P3 (WP 0038, Figure 1, Item 8) from J4 (WP 0038, Figure 1, Item 11) and set switch box cover (WP 0038, Figure 1, Item 4) out of the way.
4. Refer to FO-1. Then label all leads and plugs at each end of wiring harness (WP 0038, Figure 1, Item 7) to be replaced.
5. Disconnect all leads and plugs.
6. Remove wiring harness (WP 0038, Figure 1, Item 7).

END OF TASK**INSPECTION-ACCEPTANCE AND REJECTION CRITERIA**

Visually inspect wiring harness for damaged or frayed wires, and loose, broken, or corroded connections.

END OF TASK**REPAIR OR REPLACEMENT**

Refer to WP 0050 and repair or manufacture wiring harness (WP 0038, Figure 1, Item 7).

END OF TASK**INSTALLATION**

1. Position new wiring harness (WP 0038, Figure 1, Item 7) in place.
2. Connect leads and plugs as indicated on wiring diagram (FO-1).
3. Connect P3 (WP 0038, Figure 1, Item 8) to J4 (WP 0038, Figure 1, Item 11) and position switch box cover (WP 0038, Figure 1, Item 4) over switch box assembly.
4. Install screws (WP 0038, Figure 1, Item 1), flat washers (WP 0038, Figure 1, Item 3), and new lockwashers (WP 0038, Figure 1, Item 2) that secure the switch box cover (WP 0038, Figure 1, Item 4) to the switch box assembly.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****WIRING HARNESS MAINTENANCE (B & C MODELS)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)
Multimeter, AN/PSM-45A (WP 0112, Table 2, Item 3)

References

Switch Box Assembly (A, B, & C Models) (WP 0038)
Illustrated List of Manufactured Items (WP 0050)
Wiring Diagram (FO-1)

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

REMOVAL

1. Release clamping catches (WP 0038, Figure 2, Item 8) on switch box cover WP 0038, Figure 2, Item 3).
2. Lift switch box cover (WP 0038, Figure 2, Item 3).
3. Refer to Figure (FO-1). Label all leads and plugs at each end of the wiring harness (WP 0038, Figure 2, Item 9) to be replaced.
4. Disconnect and tag all leads and plugs.
5. Remove wiring harness (WP 0038, Figure 2, Item 9).

END OF TASK

INSPECTION OF INSTALLED ITEMS

Visually inspect wiring harness (WP 0038, Figure 2, Item 9) for damaged or frayed wires, and loose, broken, or corroded connections.

END OF TASK**REPAIR OR REPLACEMENT**

Refer to WP 0050 and repair or manufacture wiring harness (WP 0038, Figure 2, Item 9).

END OF TASK**INSTALLATION**

1. Position the new wiring harness (WP 0038, Figure 2, Item 9). in place.
2. Connect leads and plugs as indicated on wiring diagram (FO-1).
3. Close switch box cover (WP 0038, Figure 2, Item 3) and secure clamping catches (WP 0038, Figure 2, Item 8).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****ELECTRICAL LEADS MAINTENANCE (A MODEL)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)
Multimeter, AN/PSM-45A (WP 0112, Table 2, Item 3)

Materials/Parts

Washer, Lock

References

Switch Box Assembly (A, B, & C Models) (WP 0038)
Illustrated List of Manufactured Items (WP 0050)
Wiring Diagram (FO-1)

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

REMOVAL

1. Remove screws (WP 0038, Figure 1, Item 1), flat washers (WP 0038, Figure 1, Item 3), and lockwashers (WP 0038, Figure 1, Item 2) that secure switch box cover (WP 0038, Figure 1, Item 4) to the switch box assembly. Discard lockwashers (WP 0038, Figure 1, Item 2).

CAUTION

The control panel connector P3 is connected to connector J4. Movement of the switch box cover is limited. To prevent damage to control panel wiring harness, use caution removing switch box cover. Failure to observe this caution could result in equipment damage.

2. Carefully slide switch box cover (WP 0038, Figure 1, Item 4) off switch box and set in front of switch box

assembly.

3. Disconnect P3 (WP 0038, Figure 1, Item 8) from J4 (WP 0038, Figure 1, Item 11) and set switch box cover (WP 0038, Figure 1, Item 4) out of the way.
4. Refer to FO-1. Then label each end of lead to be replaced.
5. Disconnect and remove lead.

END OF TASK

INSPECTION OF INSTALLED ITEMS

Visually inspect lead for loose, broken, or corroded connections.

END OF TASK

REPAIR OR REPLACEMENT

Refer to WP 0050 and repair or fabricate lead.

END OF TASK

INSTALLATION

1. Position new lead in place.
2. Connect lead as indicated on wiring diagram (FO-1).
3. Connect P3 (WP 0038, Figure 1, Item 8) to J4 (WP 0038, Figure 1, Item 11) and position switch box cover (WP 0038, Figure 1, Item 4) over switch box assembly.
4. Install screws (WP 0038, Figure 1, Item 1), flat washers (WP 0038, Figure 1, Item 3), and new lockwashers (WP 0038, Figure 1, Item 2) that secure the switch box cover (WP 0038, Figure 1, Item 4) to the switch box assembly.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****ELECTRICAL LEADS MAINTENANCE (B & C MODELS)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

References

Switch Box Assembly (A, B, & C Models) (WP 0038)
Illustrated List of Manufactured Items (WP 0050)
Wiring Diagram (FO-1)

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

REMOVAL

1. Release clamping catches (WP 0038, Figure 1, Item 8) on switch box cover (WP 0038, Figure 1, Item 3).
2. Lift switch box cover (WP 0038, Figure 1, Item 3).
3. Refer to FO-1. Label each end of lead to be replaced.
4. Disconnect and remove lead.

END OF TASK**INSPECTION OF INSTALLED ITEMS**

Visually inspect lead for loose, broken, or corroded connections.

END OF TASK**REPAIR OR REPLACEMENT**

Refer to WP 0050 and repair or fabricate lead.

END OF TASK**INSTALLATION**

1. Position new lead in place.
2. Connect lead as indicated on wiring diagram (FO-1).
3. Close switch box cover (WP 0038, Figure 1, Item 3) and secure clamping catches (WP 0038, Figure 1, Item 8).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****BUS BAR MAINTENANCE (A MODEL)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)
Multimeter, AN/PSM-45A (WP 0112, Table 2, Item 3)

Materials/Parts

Washers, Lock

References

Switch Box Assembly (A, B, & C Models) (WP 0038)
Illustrated List of Manufactured Items (WP 0050)
Wiring Diagram (FO-1)

Equipment Condition

Both generator sets shut down. Refer to WP 0005, "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7).

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

NOTE

The Bus Bar is not a component of the B & C Model switch boxes.

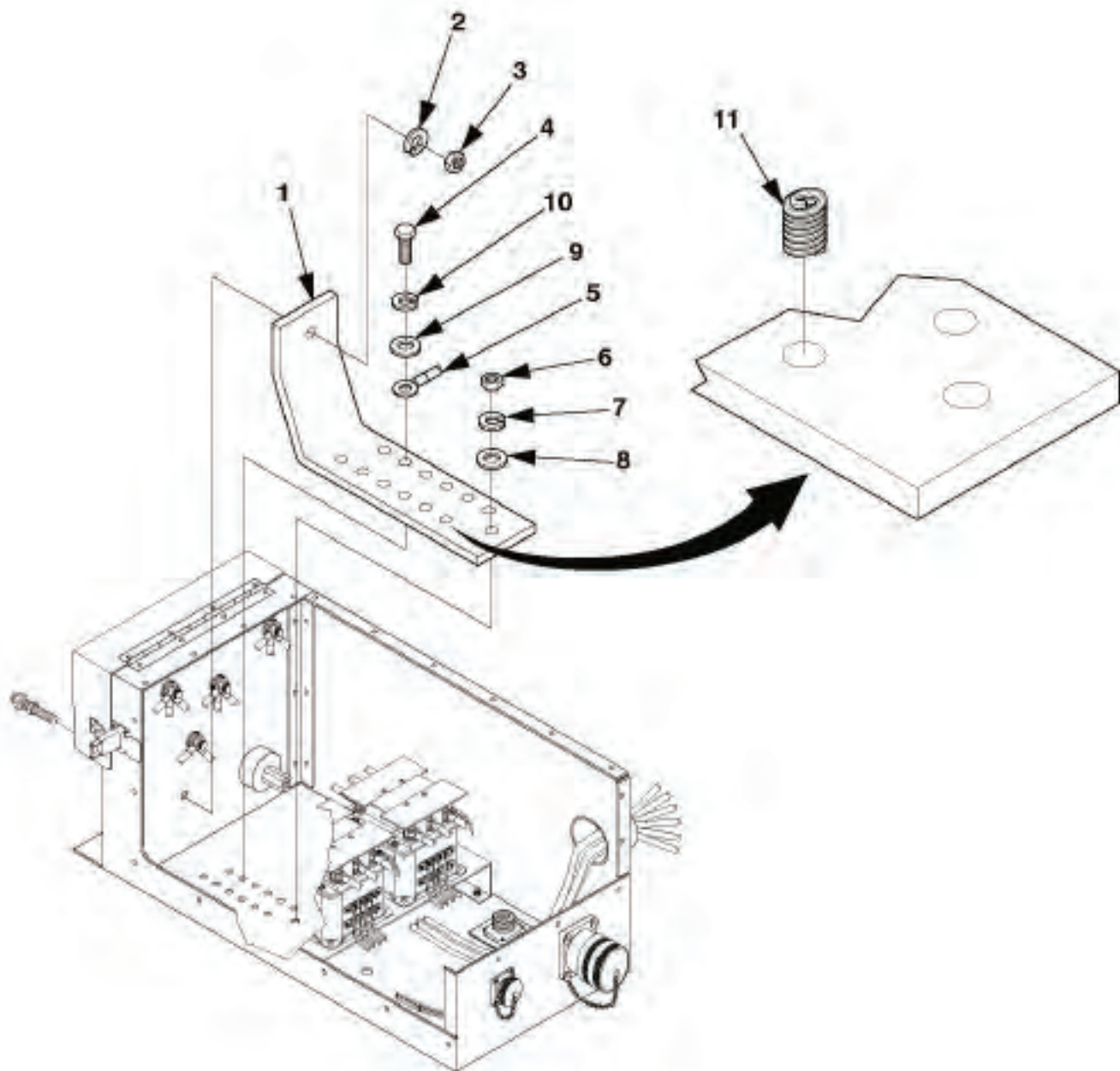


Figure 1. Bus Bar Maintenance (A Model).

INSPECTION OF INSTALLED ITEMS

Visually inspect for corrosion, damage, or for loose or missing hardware.

END OF TASK

REMOVAL

1. Remove screws (WP 0038, Figure 1, Item 1) flat washers (WP 0038, Figure 1, Item 3), and lockwashers (WP 0038, Figure 1, Item 2) that secure the switch box cover (WP 0038, Figure 1, Item 4) to the switch box assembly. Discard lockwashers (WP 0038, Figure 1, Item 2).

CAUTION

The control panel connector P3 is connected to connector J4. Movement of the switch box cover is limited. To prevent damage to control panel wiring harness, use caution removing switch box cover. Failure to observe this caution could result in equipment damage.

2. Carefully position switch box cover (WP 0038, Figure 1, Item 4) in front of switch box assembly.
3. Disconnect P3 (WP 0038, Figure 1, Item 8) from J4 (WP 0038, Figure 1, Item 11) and set switch box cover (WP 0038, Figure 1, Item 4) out of the way.

NOTE

The bus bar is physically connected to L0 of the switch box assembly and is a common ground. Leads connected to bus bar may be connected to any terminal on the bus bar.

4. Remove cap screws (Figure 1, Item 4), lockwashers (Figure 1, Item 10), flat washers (Figure 1, Item 9), and electrical leads (Figure 1, Item 5) from bus bar (Figure 1, Item 1). Discard lockwashers (Figure 1, Item 10).
5. Remove nut (Figure 1, Item 3) and lockwasher (Figure 1, Item 2). Discard lockwasher (Figure 1, Item 2).
6. Remove nut (Figure 1, Item 6), lockwasher (Figure 1, Item 7), and flat washer (Figure 1, Item 8). Discard lockwasher (Figure 1, Item 7).
7. Remove bus bar (Figure 1, Item 1).

END OF TASK

REPAIR OR REPLACEMENT

1. Disconnect and label electrical leads (Figure 1, Item 5) connected to bus bar (Figure 1, Item 1).
2. Remove defective insert (Figure 1, Item 11).
3. Using a suitable insertion tool, rotate handle counterclockwise until you can install insert (Figure 1, Item 11) into barrel with tang toward hole.
4. Turn handle clockwise until one thread of insert (Figure 1, Item 11) protrudes from hole.
5. Position over bus bar (Figure 1, Item 1) and turn handle clockwise until insert (Figure 1, Item 11) is installed.
6. Turn handle counterclockwise to remove insertion tool.
7. Install small punch into hole until it contacts tang. Break off and remove tang.

END OF TASK

INSTALLATION

1. Position bus bar (Figure 1, Item 1) in place.
2. Install flat washer (Figure 1, Item 8), new lockwasher (Figure 1, Item 7), and nut (Figure 1, Item 6).
3. Install new lockwasher (Figure 1, Item 2) and nut (Figure 1, Item 3).
4. Install electrical leads (Figure 1, Item 5), flat washers (Figure 1, Item 9), new lockwashers (Figure 1, Item 10), and cap screws (Figure 1, Item 4).
5. Connect P3 (WP 0038, Figure 1, Item 8) to J4 (WP 0038, Figure 1, Item 11) and position switch box cover (WP 0038, Figure 1, Item 4) over switch box assembly.
6. Install flat washers (WP 0038, Figure 1, Item 3), new lockwashers (WP 0038, Figure 1, Item 2), and screws (WP 0038, Figure 1, Item 1) that secure the switch box cover (WP 0038, Figure 1, Item 4) to the switch box assembly.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****CONTACTOR MAINTENANCE (A MODEL)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

Materials/Parts

Washers, Lock
Contactor

References

Switch Box Assembly (A, B, & C Models) (WP 0038)

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

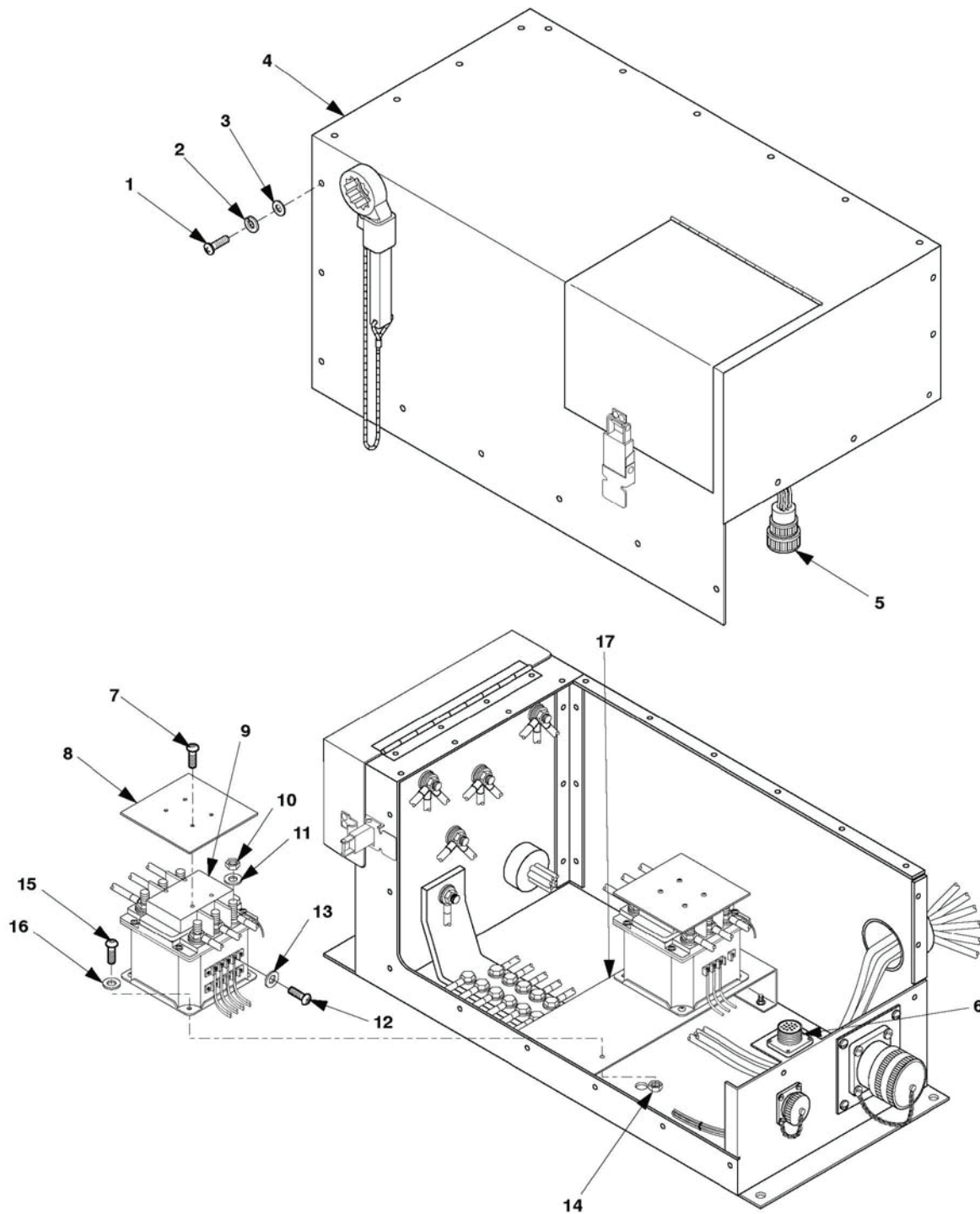


Figure 1. Contactor Maintenance (A Model).

REMOVAL

1. Remove screws (Figure 1, Item 1), lockwashers (Figure 1, Item 2), and flat washers (Figure 1, Item 3) that secure switch box cover (Figure 1, Item 4) to switch box assembly. Discard lockwashers (Figure 1, Item 2).

CAUTION

The control panel connector P3 is connected to connector J4. Movement of the switch box cover is limited. To prevent damage to control panel wiring harness, use caution removing switch box cover. Failure to observe this caution could result in equipment damage.

2. Carefully position switch box cover (Figure 1, Item 4) in front of switch box assembly.
3. Disconnect P3 (Figure 1, Item 5) from J4 (Figure 1, Item 6) and set switch box cover (Figure 1, Item 4) out of the way.
4. Remove screws (Figure 1, Item 7) and one terminal shield (Figure 1, Item 8) from the contactor (Figure 1, Item 9).
5. Remove nuts (Figure 1, Item 10) and flat washers (Figure 1, Item 11). Tag and remove leads from contactor (Figure 1, Item 9).
6. Remove terminal screws (Figure 1, Item 12) and flat washers (Figure 1, Item 13). Tag and remove wiring harnesses from contactor (Figure 1, Item 9).
7. Remove nuts (Figure 1, Item 14), lockwashers (Figure 1, Item 18), screws (Figure 1, Item 15), flat washers (Figure 1, Item 16), and contactor (Figure 1, Item 9). Discard lockwashers (Figure 1, Item 18).

END OF TASK**INSTALLATION**

1. Position new contactor (Figure 1, Item 9) over mounting holes in bracket (Figure 1, Item 17).
2. Install a flat washer (Figure 1, Item 16) on each screw (Figure 1, Item 15).
3. Install screws (Figure 1, Item 15), flat washers (Figure 1, Item 16), new lockwashers (Figure 1, Item 18), and nuts (Figure 1, Item 14) to secure contactor (Figure 1, Item 9).
4. Remove screws (Figure 1, Item 7) and terminal shield (Figure 1, Item 8) from the new contactor (Figure 1, Item 9).
5. Connect wiring harness and electrical leads. Install washers (Figure 1, Items 13 and 11), screws (Figure 1, Item 12), and nuts (Figure 1, Item 10).
6. Install terminal shield (Figure 1, Item 8) on new contactor (Figure 1, Item 9) and secure with screws (Figure 1, Item 7).
7. Connect P3 (Figure 1, Item 5) to J4 (Figure 1, Item 6) and position switch box cover (Figure 1, Item 4) over switch box assembly.
8. Install flat washers (Figure 1, Item 3), new lockwashers (Figure 1, Item 2), and screws (Figure 1, Item 1) that secure the switch box cover (Figure 1, Item 4) to the switch box assembly.

END OF TASK**TESTING**

Refer to WP 0038.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****CONTACTOR MAINTENANCE (B & C MODELS)**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)

Materials/Parts

Washers, Lock
Contactor

References

Switch Box Assembly (A, B, & C Models) (WP 0038)

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator, switch box or when connecting or disconnecting load cables. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

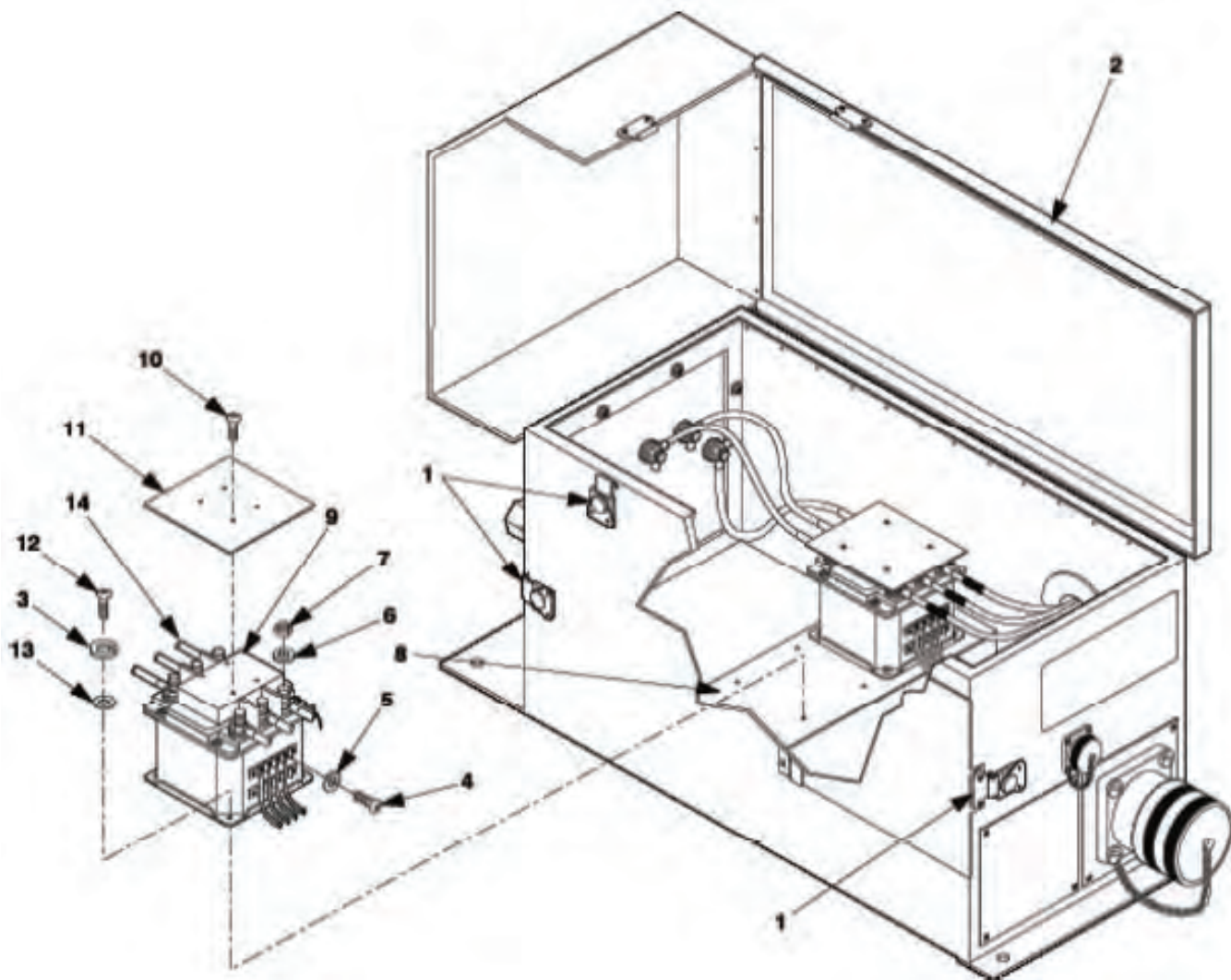


Figure 1. Contactor Maintenance (B & C Models).

REMOVAL

1. Release clamping catches (Figure 1, Item 1) on switch box cover (Figure 1, Item 2).
2. Lift switch box cover (Figure 1, Item 2).
3. Remove screws (Figure 1, Item 10) and terminal shield (Figure 1, Item 11) from the contactor (Figure 1, Item 9).
4. Remove nuts (Figure 1, Item 7) and flat washers (Figure 1, Item 6). Tag and remove six leads from contactor (Figure 1, Item 9).
5. Remove terminal screws (Figure 1, Item 4) and flat washers (Figure 1, Item 5). Tag and remove wiring harnesses from contactor (Figure 1, Item 9).
6. Remove screws (Figure 1, Item 12), lockwashers (Figure 1, Item 3), flat washers (Figure 1, Item 13), and contactor (Figure 1, Item 9). Discard lockwashers (Figure 1, Item 3).

END OF TASK

INSTALLATION

1. Position new contactor (Figure 1, Item 9) over mounting holes in bracket (Figure 1, Item 8).
2. Install a flat washer (Figure 1, Item 13) and new lockwasher (Figure 1, Item 3) on each screw (Figure 1, Item 12).
3. Install screws (Figure 1, Item 12) with new lockwashers (Figure 1, Item 3) and flat washers (Figure 1, Item 13) to secure contactor (Figure 1, Item 9).
4. Remove screws (Figure 1, Item 10) and terminal shield (Figure 1, Item 11) from new contactor (Figure 1, Item 9).
5. Connect wiring harness and six electrical leads (Figure 1, Item 14). Install flat washers (Figure 1, Items 5 and 6), screws (Figure 1, Item 4), and nuts (Figure 1, Item 7).
6. Install terminal shield (Figure 1, Item 11) on new contactor (Figure 1, Item 9) and secure with screws (Figure 1, Item 10).

END OF TASK**TESTING**

Refer to WP 0038.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****2 ½ TON TRAILER FUEL DRAIN ASSEMBLY MAINTENANCE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)
Multimeter, AN/PSM-45A (WP 0112, Table 2, Item 3)

References

Illustrated List of Manufactured Items (WP 0050)

Equipment Condition

Generator set removed, WP 0048.
Trailer support devices are lowered. Refer to
"Positioning Power Unit/Power Plant" located in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Fuels used in the generator set are flammable. Do not smoke or use open flames when performing maintenance. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

WARNING

Diesel fuel is flammable and toxic to eyes, skin, and respiratory tract. Skin and eye protection are required when working in contact with diesel fuel. Avoid repeated or prolonged contact. Provide adequate ventilation. Operators are to wash exposed skin and change chemical soaked clothing promptly if exposed to fuel. Failure to comply with this warning can cause injury or death to personnel.

NOTE

The above warnings apply to all procedures listed in this work package.

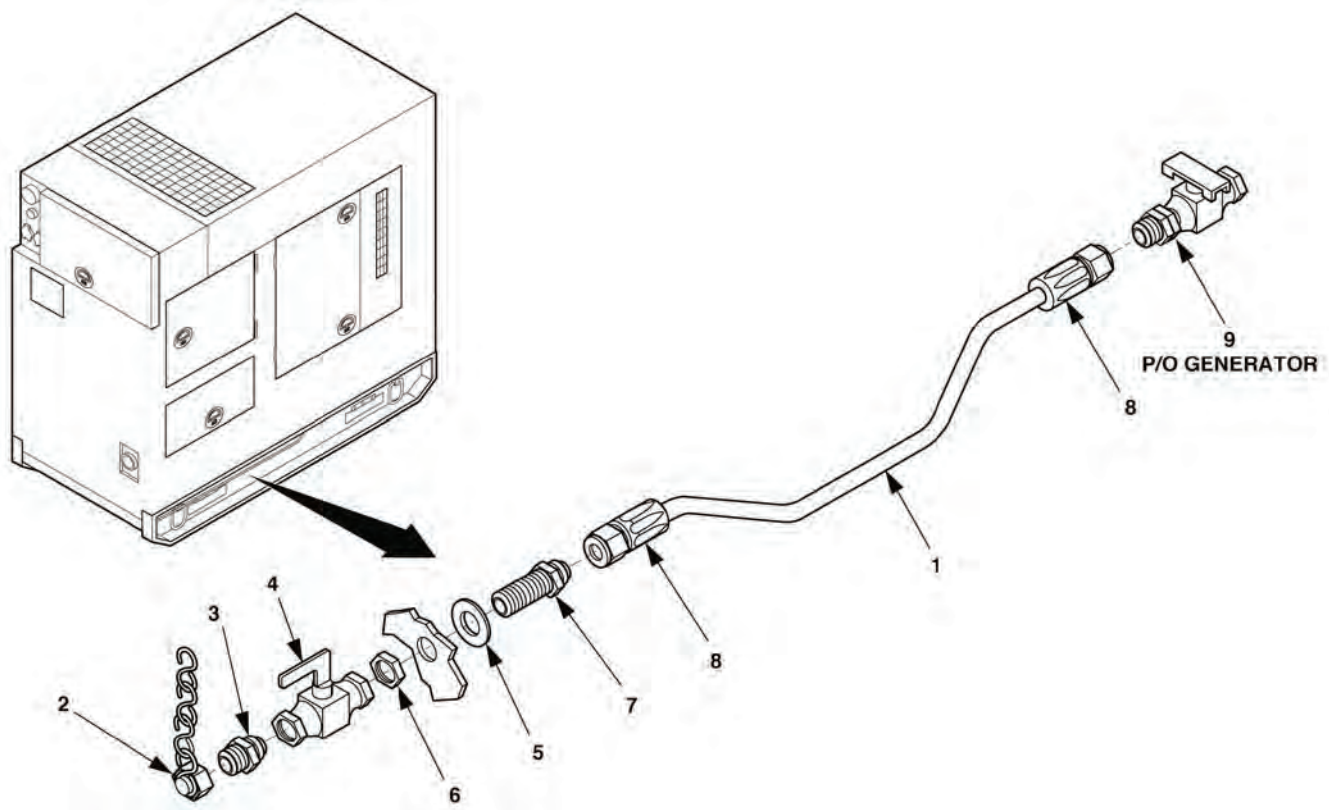


Figure 1. Fuel Drain Assembly Replacement.

REMOVAL

1. Close valve (Figure 1, Item 9 (P/O generator set)).
2. Close drain cock valve (Figure 1, Item 4) and remove cap (Figure 1, Item 2) from fuel drain assembly.
3. Place container beneath fuel drain assembly.
4. Disconnect hose fittings (Figure 1, Item 3) from drain cock valve (Figure 1, Item 4).
5. Remove hose assembly (Figure 1, Item 1).
6. Remove drain cock valve (Figure 1, Item 4), retaining nut (Figure 1, Item 6), and flat washer (Figure 1, Item 5) from tube nipple (Figure 1, Item 7).
7. Remove tube nipple (Figure 1, Item 7).

END OF TASK

REPLACE

Refer to WP 0050 and replace fuel drain assembly.

END OF TASK

INSTALLATION

1. Position tube nipple (Figure 1, Item 7) on the hose fitting (Figure 1, Item 8).
2. Install flat washer (Figure 1, Item 5) on tube nipple (Figure 1, Item 7).

3. Install tube nipple (Figure 1, Item 7), with flat washer (Figure 1, Item 5), through mounting hole and secure with retaining nut (Figure 1, Item 6).
4. Install drain cock valve (Figure 1, Item 4) on tube nipple (Figure 1, Item 7).
5. Install hose assembly (Figure 1, Item 1) and tighten hose fittings (Figure 1, Item 8).
6. Install hose fitting (Figure 1, Item 3) and tube cap (Figure 1, Item 2) on drain cock valve (Figure 1, Item 4).
7. Close drain cock valve (Figure 1, Item 4) and open valve (Figure 1, Item 9).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****TRAILER MODIFICATIONS MAINTENANCE**

INITIAL SETUP:

Not Applicable

NOTE

When referring to TM 9-2330-205-14&P, make sure that the proper chassis configuration is known.

Repair of the rear steps, fender, front steps and front platform is limited to bending, straightening, and welding. Refer to TM 9-2330-205-14&P for repair procedures.

END OF WORK PACKAGE

FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT**

REPLACE GENERATOR SET

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's or Standard
Automotive Tool Set (WP 0112, Table 2, Item 7)
Lifting device with 6000 lb capacity

Materials/Parts

Locknuts
Rope

Personnel Required

(4)

Equipment Condition

Both generator sets shut down. For analog sets, refer to "Removal from Parallel Operation (Load Transfer) for Analog" (Steps 1-7). For digital sets, refer to "Removal from Parallel Operation (Load Transfer) for Digital" (Steps 1-7). Both can be found in WP 0005.

WARNING

All metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry when working on generator set. Failure to comply with this warning can cause injury or death to personnel.

WARNING

DO NOT wear loose clothing when performing checks, services and maintenance. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Fuels used in the generator set are flammable. Do not smoke or use open flames when performing maintenance. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 6000 pounds (3176 kg). Do not stand or put arms, legs, or any part of the body under hoisted load. Do not permit generator set to swing. Failure to comply with this warning can cause injury or death to personnel, and damage to the generator set.

NOTE

The above warnings apply to all procedures listed in this work package.

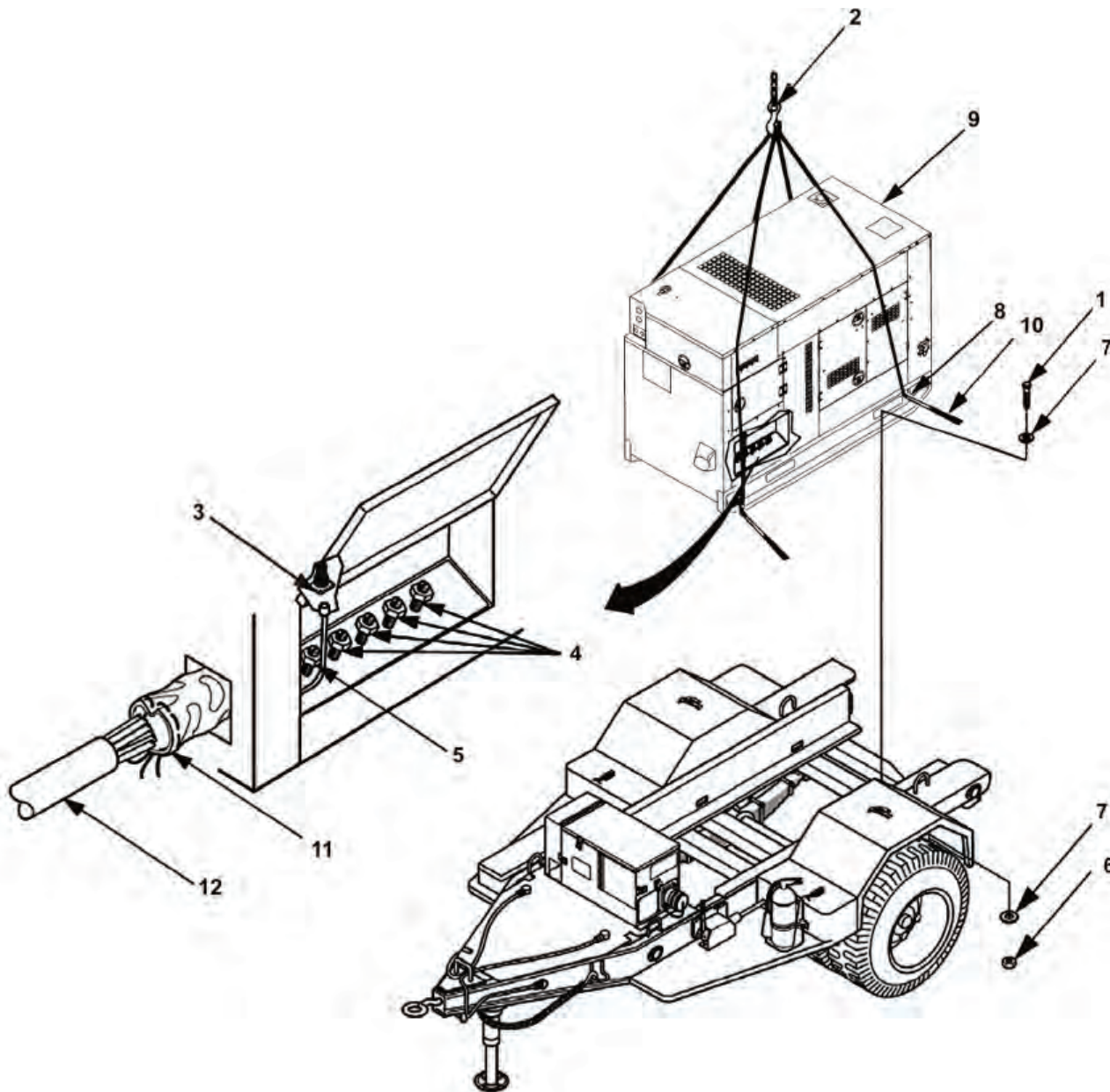


Figure 1. Generator Set Removal.

REMOVAL

1. When removing the generator set from Unit A of the power plant, detach power cable connector P1 (Figure 1, Item 3) from generator set and pull power cable (Figure 1, Item 3) out of generator set through power cable sock (Figure 1, Item 12).
2. Loosen L1, L2, L3, N, and GND terminals (Figure 1, Items 4 and 5) of Unit A/Unit B generator sets, disconnect electrical leads (Figure 1, Item 13) from generator set and pull electrical leads (Figure 1, Item 13) out of generator set through power cable sock (Figure 1, Item 12).
3. Remove the four screws (Figure 1, Item 1), eight flat washers (Figure 1, Item 7), and four locknuts (Figure 1, Item 6) securing the generator set to the trailer. Discard locknuts (Figure 1, Item 6).
4. Attach lifting equipment (Figure 1, Item 2) with a minimum capacity of 6000 lbs.

5. Insert ropes (Figure 1, Item 10) through each of four lifting rings (Figure 1, Item 8) on generator set (Figure 1, Item 9).
6. With one person at each rope (Figure 1, Item 10) to steady and guide generator set (Figure 1, Item 9), lift generator set.

END OF TASK**INSTALLATION**

1. Attach lifting equipment (Figure 1, Item 2) with a minimum lifting capacity of 6000 lb.
2. Insert rope (Figure 1, Item 10) through four lifting rings (Figure 1, Item 8) on generator set (Figure 1, Item 9).
3. With one person at each rope (Figure 1, Item 10) to steady and guide generator set (Figure 1, Item 9), lift generator set.
4. Guide generator set skids into position on trailer and lower generator set onto trailer.
5. For all power units, install four screws (Figure 1, Item 1), eight flat washers (Figure 1, Item 7), and four new locknuts (Figure 1, Item 6) that secure generator set (Figure 1, Item 9).
6. Disconnect lifting equipment (Figure 1, Item 2).
7. Route power cable (Figure 1, Item 3) and electrical leads (Figure 1, Item 13) through power cable sock (Figure 1, Item 12) on front of Unit A generator set (Figure 1, Item 9).
8. Connect ground cable to GND terminal (Figure 1, Item 5) of generator set (Figure 1, Item 9) and tighten nut.
9. Reconnect electrical leads (Figure 1, Item 4) and connector P1 (Figure 1, Item 3) to generator set when installing generator set on Unit A.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

PREPARATION FOR STORAGE AND SHIPMENT

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's (GMKT) (WP 0112, Table 2, Item 7)

Materials/Parts

Preservative oil
MIL-PRF-21260 (EIC: N/A)
Hose
Container for preservative oil
Caps or plugs conforming to
AIA/NAS 840 and/or AIA/NAS 847 (EIC: N/A)
Tape conforming to
SAE-AMS-T022085 (EIC: N/A)
Oil Filter
MIL-PRF-21260 (EIC: N/A)
Fuel filter element

Equipment Condition

Engine control switch OFF

PREPARATION FOR STORAGE OR SHIPMENT

Short-Term Storage

This type of storage is used when the equipment is expected to be stored from 1 to 45 days. The storage may be at destination after domestic shipment, or may be administrative storage when there is a shortage of maintenance manpower. For administrative storage:

1. Perform maintenance services and serviceability criteria evaluations before placing equipment in administrative storage. Correct shortcomings and deficiencies.
2. If possible, select an inside storage site. If inside storage is not available, a truck, van container, or other suitable container may be used.
3. When in administrative storage, the equipment should be capable of being made mission ready within 24 hours unless a different time frame is directed by the approving authority.
4. Additional Level A or B (PPP-G-2919) preservation and packing may be required.

Intermediate-Term Storage

This type of storage is used when the equipment is expected to be stored from 45 to 180 days. Level A or B (PPP-G-2919) preservation and packing may be required.

Long-Term Storage

This type of storage is used when the equipment is expected to be stored for more than 180 days. Level A (PPP-G-2919) preservation and packing may be required.

For Periods Less Than 9 Months.

Start generator set every month and operate for a minimum of 15 minutes or until engine reaches normal operating temperature.

For Periods Longer Than 9 Months Up To 36 Months.

1. Completely read storage and preservation instructions that follow prior to performing them to avoid unnecessary steps.
2. Operate generator set at 80% load for ½ hour. Perform PMCS inspections and verify generator set is fully mission capable.
3. Drain engine oil and refill engine crankcase with preservative lubricating oil conforming to grade 10, 30, or 15-40 of MIL-PRF 21260. Remove engine oil filter and replace with new filter.

4. Locate a container capable of supplying oil to the engine fuel supply lines. Fill container with preservative oil, MIL-PRF-21260, Grade PEI 0, and position container next to the fuel tank suction lines. Drain diesel fuel from the fuel filters and supply lines between the engine and the fuel tank. Replace fuel filter elements. Disconnect the engine fuel supply line at a convenient point close to the fuel tank and connect a flexible line from the container of preservative oil to the engine fuel supply line. Start the engine and operate at its normal rated speed, for the time deemed necessary to ensure that the preservative oils have reached all internal engine components and all the fuel injection system components. This should be between 4 to 7 minutes.
5. Allow engine to cool to less than 100°F. Install plate in air intake system that fully blocks air flow into the engine. With preservative oil supply line still connected crank the engine without starting for 10 seconds. Disconnect preservative oil supply line and reconnect engine fuel lines.
6. Remove batteries from generator, clean dirt, acid and other residues from top of batteries, and check voltage. Charge the batteries if the voltage is less than 12.7 volts for the Optima AGM batteries. Charge the batteries if the voltage is less than 12.5 volts for the flooded wet cell batteries. Store the batteries in a location where they can be charged. Charge wet-cell batteries every 3 months and Optima batteries every 6 months. Charge the Optima batteries with a charger with an AGM setting or that regulates the voltage between 14.25 and 14.75 volts.
7. Drain the fuel tank.
8. Service cooling system and test antifreeze for proper concentration and temperature rating for anticipated storage temperatures. Drain and replace coolant if normal scheduled Coolant replacement will occur during the storage period.
9. Drain oil from engine. Reinstall drain plug.
10. Upon completion of engine preservation, all openings into the engine such as crankcase breathers, oil filter caps, valve cover breather holes, oil level dipstick/tube, and openings into accessories, shall be sealed with plastic caps or plugs conforming to AIA/NAS 840 and/or AIA/NAS 847, or with tape conforming to SAE-AMS-T-22085.
11. Attach warning tags to the oil dipstick and the control panel start switch stating that: 'The generator set has been preserved. Change fuel filters, fill engine with oil and perform PMCS before starting.'
12. Close all access doors and lock. Store generator set under roof, or inside if available. Do not store under tarp for long periods unless there is significant air flow under tarp and at least 3 ft. of space between tarp and generator set. Shipment: Prepare for shipment in accordance with applicable DOD and commercial transportation rules, regulations and procedures. Refer to Defense Travel Regulations, DOD 4500.9-R, Part II, Cargo Movement and TM 38-250, Preparing Hazardous Materials for Military Air Shipments.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

ILLUSTRATED LIST OF MANUFACTURED ITEMS INTRODUCTION

ILLUSTRATED LIST OF MANUFACTURED ITEMS INTRODUCTION

Scope

WP 0051 through WP 0060 includes complete instructions for making items authorized to be manufactured or fabricated at the opfield maintenance level.

How to Use the Index of Manufactured Items

A part number index in alphanumeric order is provided for cross-referencing the part number of the item to be manufactured to the information which covers fabrication criteria.

Explanation of the Illustrations of Manufactured Items

All instructions needed by maintenance personnel to manufacture the item are included on the illustrations. All bulk materials needed for manufacture of an item are listed by part number or specification number in a tabular list on the illustration.

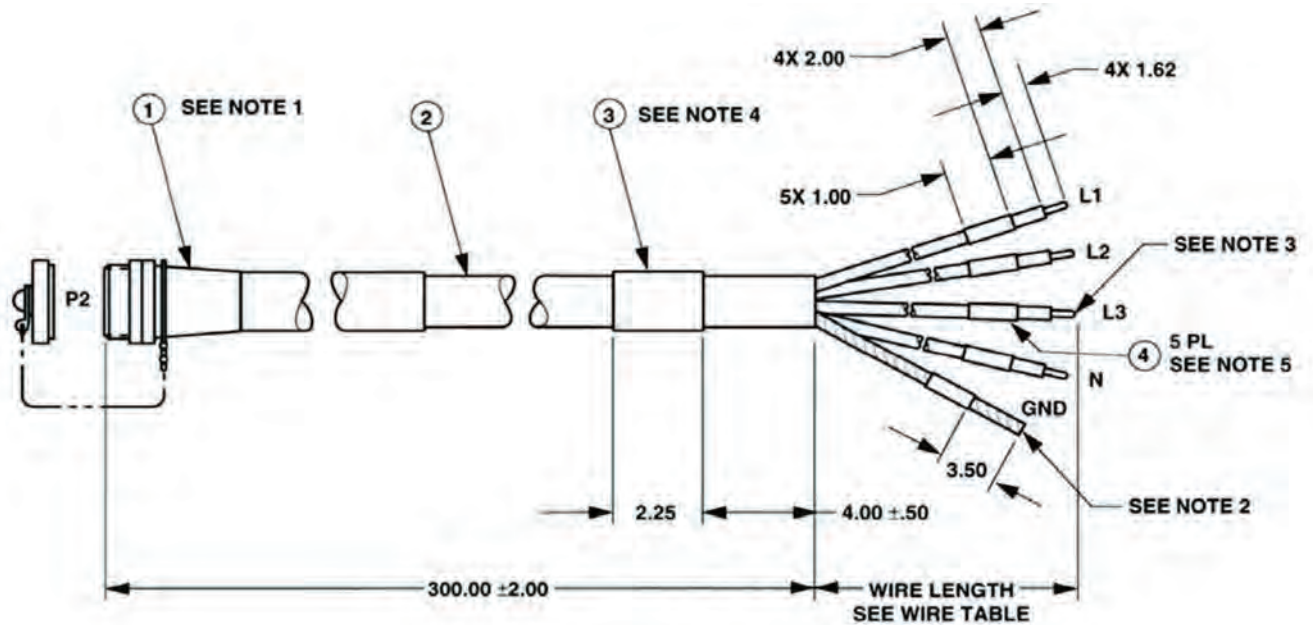
INDEX OF MANUFACTURED ITEMS

P/N AND/OR DWG NO	PART DESCRIPTION	REFERENCE
13229E5741	Manufactured Item, Cable Assembly W19	WP 0051
13229E5800-2 (AN/MJQ-41, A Model)	Manufactured Item, Wiring Harness, W7 (A Model)	WP 0052
13229E5800-2 (B & C Models)	Manufactured Item, Wiring Harness, W7 (B & C Models)	WP 0053
13229E5806-1, 2	Manufactured Item, Wiring Harness, W17 and W18	WP 0054
13229E5809-3, 4 (AN/MJQ-41, A Model)	Manufactured Item, Wiring Harness W9 and W10 (A Model)	WP 0055
13229E5809-4 (B & C Models)	Manufactured Item, Wiring Harness W10 (B & C Models)	WP 0056
13229E5810-7, 8, 9, 17, 18, 19, 20, 23	Manufactured Item, Electrical Leads, W11-16, W21, W22	WP 0057
13229E5811-11, 12, 13, 14, 15	Manufactured Item, Power Leads, W1-W5	WP 0058
13229E5837 (AN/MJQ-41, A Model)	Manufactured Item, Harness Assembly, W20 (A Model)	WP 0059
MS52103A050440R	Manufactured Item, Fuel Drain Assembly	WP 0060

END OF WORK PACKAGE

FIELD MAINTENANCE

**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
MANUFACTURED ITEM, CABLE ASSEMBLY W19**



PARTS LIST

ITEM NO.	PART NO.	CAGE NO.	QTY REQD.	DESCRIPTION	SPECIFICATION OR NSN
1	MS90557C52413S	96906	1	CONNECTOR, PLUG, ELECT, CABLE CONNECTING	
2	022756	71102	AR	CABLE, SEE NOTE 3	MIL-C-3432
3	M23053/5-113-0	19099	2	INSULATION SLEEVING, HEAT SHRINKABLE, BLK	MIL-I-23053/5
4	M23053/5-110-9	19099	5	INSULATION SLEEVING, HEAT SHRINKABLE, WHT	MIL-I-23053/5
5	SN60WRP2 0.125, 1LB		LB	SOLDER, TIN ALLOY	J-STD-004 J-STD-005 J-STD-006

Figure 1. Cable Assembly, W19, P/N 13229E5741 (Sheet 1 of 2).

NOTES:

1. CRIMP CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.
2. AT PIGTAIL END OF CABLE, THE FOUR 4 AWG GROUNDING CONDUCTORS SHALL BE TWISTED TOGETHER, STARTING AT THE JACKET. CONDUCTORS SHALL BE SOLDER COATED FOR A LENGTH OF .250 FROM END USING SOLDER, FIND NO. 5.
3. AT PIGTAIL END OF CABLE, EACH INSULATED CONDUCTOR SHALL HAVE ITS INDIVIDUAL STRANDS TWISTED TOGETHER AND SOLDER COATED FOR A LENGTH OF .25 FROM END, USING SOLDER, FIND NO. 5.
4. HOT STAMP "97403-13229E5741", "W19", AND "NSN 6145-01-440-5706" IN .09-.16 HIGH WHITE CHARACTERS ON INSULATION SLEEVING, FIND NO. 3.
5. HOT STAMP TERMINAL DESIGNATION, AS SHOWN IN WIRE TABLE, USING .09-.16 HIGH BLACK CHARACTERS, IN TWO PLACES (180° APART) ON INSULATION SLEEVING, FIND NO. 4.
6. INSULATION COLORS, IN ACCORDANCE WITH WIRE TABLE, SHALL BE INCLUDED AS PART OF THE ORDERING DATA.

WIRE LIST

TERMINATION		TERMINATION		WIRE LENGTH +/- .50	WIRE COLOR SEE NOTE 6	AWG (REF)
FROM	FIND NO.	TO (SEE NOTE 7)	FIND NO.			
P2-A	1	G2-L1	-	19.50	BLK	4/0
P2-B		G2-L2	-	21.50	RED	
P2-C		G2-L3	-	24.50	BLU OR ORN	
P2-N		G2-(N)	-	13.50	WHT	
P2-G1		G2-GND	-	12.50	GRN OR BARE	4
P2-G2			-			
P2-G3			-			
P2-G4			-			

Figure 1. Cable Assembly, W19, P/N 13229E5741 (Sheet 2 of 2).

P/N 13229E5741, CABLE ASSEMBLY, W19

END OF TASK

END OF WORK PACKAGE

**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
MANUFACTURED ITEM, WIRING HARNESS, W7 (A MODEL)**



ITEM NO.	PART NO.	CAGE NO.	QTY REQD.	DESCRIPTION	SPECIFICATION OR NSN
1	MS3100R20-27S		1	CONNECTOR, RECEPTACLE, ELECTRICAL	
2	M22759/16-18-9		AR	WIRE, ELECTRICAL, 16 AWG, WHT	MIL-W-22759/16
3	D-753-34		1	TERMINAL LUG, 16-4 AWG, .500 STUD SIZE	
4	M23053/5-105-4		12	INSULATION SLEEVING, HEAT SHRINKABLE, .187 ID X L AS REQUIRED	MIL-I-23053/5
5	13226E0107-11		8	TERMINAL LUG, 16-14 AWG, .138 STUD SIZE	
6	M23053/5-108-4		1	INSULATION SLEEVING, HEAT SHRINKABLE, .500 ID X 2.50 LONG	MIL-I-23053/5
7	13226E0107-16		2	TERMINAL LUG, 16-14 AWG, .375 STUD SIZE	
8	Sn60Pb40		AR	SOLDER	QQ-S-571
9	MS3367-1-9		AR	STRAP, TIE DOWN, ELECTRICAL	

Figure 1. Wiring Harness, W7 (A Model) (Sheet 1 of 2).

NOTES:

1. HOT STAMP "W7" AND "97403-13229E5800-2" ON SLEEVING, FIND NO. 6, IN ACCORDANCE WITH MIL-M-60903. LOCATE APPROXIMATELY AS SHOWN.
2. HOT STAMP SLEEVING, FIND NO. 4, WITH WIRE ADDRESS WITHIN 2 INCHES OF ITS TERMINATION, IN ACCORDANCE WITH MIL-M-60903. THE ADDRESS CONSISTS OF THE FROM TERMINATION, A DOUBLE HEADED ARROW AND THE TO TERMINATION.
3. SOLDER CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-2000, USING SOLDER, FIND NO. 8.
4. STRIP AND TIN ENDS IN ACCORDANCE WITH MIL-STD-2000.
5. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.
6. BUNDLE WIRES USING TIE DOWN STRAPS, FIND NO. 9, AT INTERVALS OF 3.00 MAX. AND AT ALL BREAKOUTS.
7. WIRE NO. 2 AND 12 SHALL TERMINATE AT TERMINAL, FIND NO. 3. CRIMP WIRES IN TERMINAL, FIND NO. 3, AND SOLDER.

WIRE LIST

WIRE NO.	TERMINATION		TERMINATION		WIRE FIND NO.
	FROM	FIND NO.	TO	FIND NO.	
1	J4-A	1	K1-A1	7	2
2	J4-B		L0	3	
3	J4-C		K1-Y	5	
4	J4-D		K1-X	5	
5	J4-F		K1-11	5	
6	J4-G		K1-12	5	
7	J4-H		K2-12	5	
8	J4-I		K2-11	5	
9	J4-K		K2-X	5	
10	J4-L		K2-Y	5	
11	J4-M		K2-A1	7	
12	J4-N		L0	3	

Figure 1. Wiring Harness, W7 (A Model) (Sheet 2 of 2).

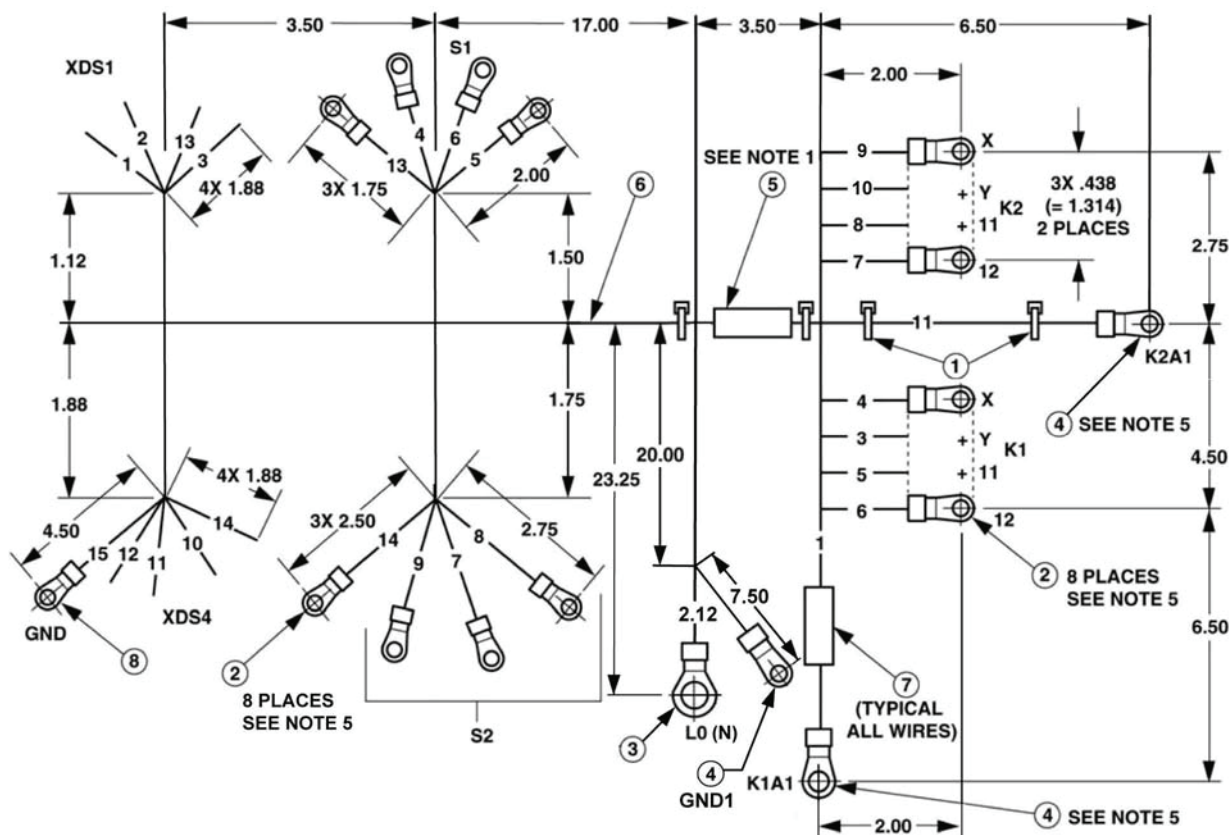
P/N 13229E5800-2 (AN/MJQ-41, A MODEL), WIRING HARNESS, W7 (A MODEL)

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
MANUFACTURED ITEM, WIRING HARNESS, W7 (B & C MODELS)**



PARTS LIST

ITEM NO.	PART NO.	CAGE NO.	QTY REQD.	DESCRIPTION	SPECIFICATION OR NSN
1	MS3367-1-9		AR	STRAP, TIE DOWN, ELECTRICAL	
2	13226E0107-3		16	TERMINAL LUG, 22-18 AWG, .138 STUD SIZE	
3	98-8104-1		1	TERMINAL LUG, 22-18 AWG, .500 STUD SIZE	
4	13226E0107-8		3	TERMINAL LUG, 22-18 AWG, .375 STUD SIZE	
5	M23053/5-110-9		1	INSULATION SLEEVING, HEAT SHRINKABLE, .500ID X 2.50 LONG	MIL-I-23053/5
6	M22759/16-18-9		AR	WIRE, ELECTRICAL, 18 AWG, WHT	
7	M23053/5-105-9		30	INSULATION SLEEVING, HEAT SHRINKABLE, .187ID X L. AS REQUIRED	MIL-I-23053/5
8	13226E0107-5		1	TERMINAL LUG, 22-18 AWG, .190 STUD SIZE	
9	SN60WRP92		LB	SOLDER, TIN ALLOY 0.125, 1LB	J-STD-004 J-STD-005 J-STD-006

Figure 1. Wiring Harness, W7 (B & C Models) (Sheet 1 of 2).

NOTES:

1. HOT STAMP "W7" AND "97403-13229E5800-2" ON SLEEVING, FIND NO. 5. LOCATE APPROXIMATELY AS SHOWN.
2. HOT STAMP SLEEVING, FIND NO. 7, WITH WIRE ADDRESS WITHIN 2 INCHES OF ITS TERMINATION. THE ADDRESS CONSISTS OF THE FROM TERMINATION, A DOUBLE-HEADED ARROW, AND THE TO TERMINATION.
3. SOLDER CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-2000, USING SOLDER, FIND NO. 9.
4. STRIP AND TIN ENDS IN ACCORDANCE WITH MIL-STD-2000.
5. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.
6. BUNDLE WIRES USING TIEDOWN STRAPS, FIND NO. 1, AT INTERVALS OF 3.00 MAX. AND AT ALL BREAKOUTS.
7. WIRE NO. 2 AND 12 SHALL TERMINATE AT TERMINAL FIND NO. 3. CRIMP WIRES IN TERMINAL, FIND NO. 3, AND SOLDER.

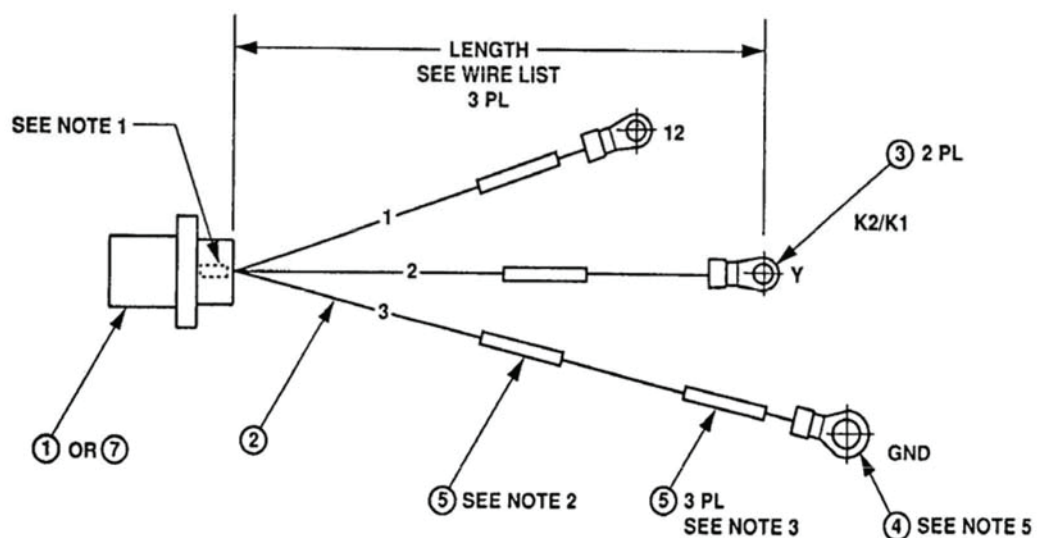
WIRE LIST

WIRE NO.	TERMINATION		TERMINATION		WIRE FIND NO.
	FROM	FIND NO.	TO	FIND NO.	
1	XDS1-1	-	K1-A1	4	6
2	XDS1-2	-	L0(N)	3	
3	XDS3-2	-	K1-Y	2	
4	S1-3	2	K1-X	2	
5	S1-5	2	K1-11	2	
6	S1-6	2	K1-12	2	
7	S2-6	2	K2-12	2	
8	S2-5	2	K2-11	2	
9	S2-3	2	K2-X	2	
10	XDS4-2	-	K2-Y	2	
11	XDS2-1	-	K2-A1	4	
12	XDS2-2	-	L0(N)	3	
13	XDS3-1	-	S1-3	2	
14	XDS4-1	-	S2-3	2	
15	GND	8	GND1	4	

Figure 1. Wiring Harness, W7 (B & C Models) (Sheet 2 of 2).**P/N 13229E5800-2 (B & C MODELS), WIRING HARNESS, W7 (B & C MODELS)****END OF TASK****END OF WORK PACKAGE**

FIELD MAINTENANCE

**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
MANUFACTURED ITEM, WIRING HARNESS, W17 AND W18**

**PARTS LIST**

ITEM NO.	PART NO.	CAGE NO.	QTY REQD.		DESCRIPTION	SPECIFICATION OR NSN
			-1	-2		
1	MS3102R18-11P		1	-	CONNECTOR, RECEPTACLE, ELECTRICAL	
2	M22759/16-16-9		AR	AR	WIRE, ELECTRICAL, .16 AWG, WHT	MIL-W-22759/16
3	MS25036-107		2	2	TERMINAL LUG, CRIMP STYLE, 16-14 AWG, .138 STUD SIZE	
4	MS25036-154		1	1	TERMINAL LUG, CRIMP STYLE, 16-14 AWG, .250 STUD SIZE	
5	M23053/5-104-4		4	4	INSULATION SLEEVING, HEAT SHRINKABLE, .125 IDX 2.00 LONG	MIL-I-23053/5
6	Sn60Pb40		AR	AR	SOLDER	QQ-S-571
7	MS3456W18-11S		-	1	CONNECTOR, PLUG, ELECTRICAL	

Figure 1. Wiring Harness, W17 and W18 (Sheet 1 of 2).

NOTES:

1. MARK REFERENCE DESIGNATION "J3" OR "P1" IN ACCORDANCE WITH MIL-STD-130, METHOD OPTIONAL.
2. HOT STAMP "W17 OR W18", INDICATED IN WIRE LIST, AND "97403-13229E5806- " WITH APPROPRIATE DASH NO. ON SLEEVING, FIND NO. 5, IN ACCORDANCE WITH MIL-M-60903. LOCATE APPROXIMATELY AT MIDPOINT OF WIRE.
3. HOT STAMP SLEEVING, FIND NO. 5, WITH WIRE ADDRESS, WITHIN 2 INCHES OF ITS TERMINATIONS, IN ACCORDANCE WITH MIL-M-60903. THE ADDRESS CONSISTS OF THE FROM TERMINATION, A DOUBLE HEADED ARROW, AND THE TO TERMINATION.
4. SOLDER CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-2000, USING SOLDER, FIND NO. 6.
5. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.

WIRE LIST

DASH NO.	WIRE NO.	TERMINATION		TERMINATION		LENGTH +/- .25	HARNESS REF DES.
		FROM	FIND NO.	TO	FIND NO.		
-1	1	J3-A	1	K2-12	3	15.00	W17
	2	J3-B	1	K2-Y	3	15.00	
	3	J3-E	1	GND	4	25.00	
-2	1	P1-A	7	K1-12	3	48.00	W18
	2	P1-B	7	K1-Y	3	48.00	
	3	P1-E	7	GND2	4	60.00	

Figure 1. Wiring Harness, W17 and W18 (Sheet 2 of 2).

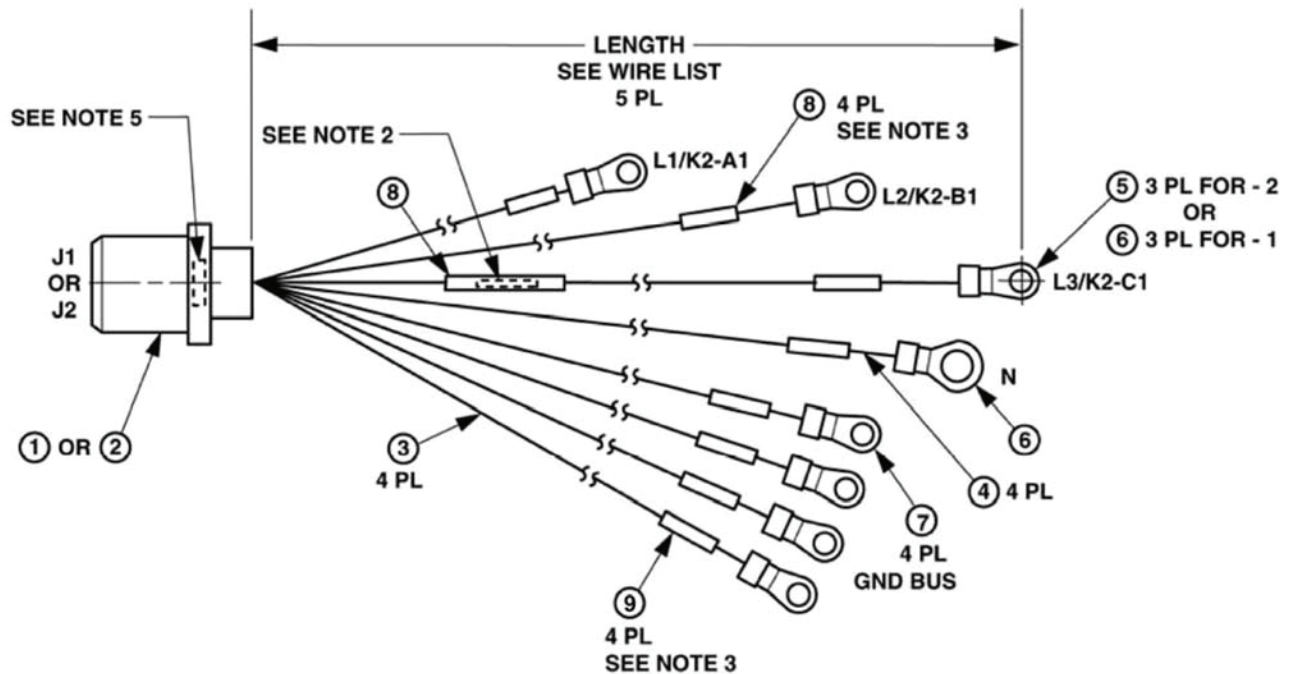
P/N 13229E5806-1, 2, WIRING HARNESS, W17 AND W18

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
MANUFACTURED ITEM, WIRING HARNESS W9 AND W10 (A MODEL)**

**PARTS LIST**

ITEM NO.	PART NO.	CAGE NO.	QTY REQD.		DESCRIPTION	SPECIFICATION OR NSN
			-1	-2		
1	MS90555C52413S		1	-	CONNECTOR, RECEPTACLE, ELECTRICAL	
2	MS90558C52413P		-	1	CONNECTOR, RECEPTACLE, ELECTRICAL	
3	M5086/2-4-9		AR	AR	WIRE, ELECTRICAL, 4 AWG, WHT	MIL-W-5086/2
4	M5086/2-2/0-9		AR	AR	WIRE, ELECTRICAL, 2/0 AWG, WHT	MIL-W-5086/2
5	13217E3858-16		1	3	TERMINAL LUG, 2/0 AWG, .375 STUD SIZE	
6	J787-34		4	1	TERMINAL LUG, 2/0 AWG, .750 STUD SIZE	
7	MS25036-123		4	4	TERMINAL LUG, 4 AWG, .500 STUD SIZE	
8	M23053/5-110-4		5	5	INSULATION SLEEVING, HEAT SHRINKABLE, .750 ID X 2.50 LONG	MIL-I-23053/5
9	M23053/5-108-4		4	4	INSULATION SLEEVING, HEAT SHRINKABLE, .500 ID X 2.50 LONG	MIL-I-23053/5

Figure 1. Wiring Harness, W9 and W10 (A Model) (Sheet 1 of 2).

NOTES:

1. ASSEMBLE WIRE, FIND NO. 3 AND 4, INTO CONNECTOR, FIND NO. 1 OR 2, IN ACCORDANCE WITH MIL-C-22992, CLASS L.
2. HOT STAMP "W_", INDICATED IN WIRE LIST, AND "97403-13229E5808- " WITH APPROPRIATE DASH NO. (3 OR 4) ON SLEEVING, FIND NO. 8. LOCATE AT MIDPOINT OF WIRE.
3. HOT STAMP SLEEVING, FIND NOS. 8 AND 9, WITH WIRE ADDRESS, WITHIN 2 INCHES OF ITS TERMINATIONS. THE ADDRESS CONSISTS OF THE FROM TERMINATION, A DOUBLE- HEADED ARROW, AND THE TO TERMINATION.
4. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.
5. MARK CONNECTOR REFERENCE DESIGNATION IN .12 MIN HIGH CHARACTERS, IN ACCORDANCE WITH MIL-STD-130, METHOD OPTIONAL.

WIRE LIST

DASH NO.	CONN REF DES	WIRE NO.	TERMINATION		TERMINATION		LENGTH +/- .12	WIRE FIND NO.	HARNESS REF DES
			FROM	FIND NO.	TO	FIND NO.			
-3	J1	1	J1-A	1	L1	6	14.00	4	W9
		2	J1-B		L2		17.00		
		3	J1-C		L3		20.00		
		4	J1-N		N(L0)				
		5	J1-G1		BUS BAR	7	8.00	3	
		6	J1-G2						
		7	J1-G3						
		8	J1-G4						
-4	J2	1	J2-A	2	K2-A1	5	14.50	4	W10
		2	J2-B		K2-B1				
		3	J2-C		K2-C1				
		4	J2-N		N(L0)	6	28.00	3	
		5	J2-G1		BUS BAR	7	22.50		
		6	J2-G2						
		7	J2-G3						
		8	J2-G4						

Figure 1. Wiring Harness, W9 and W10 (A Model) (Sheet 2 of 2).

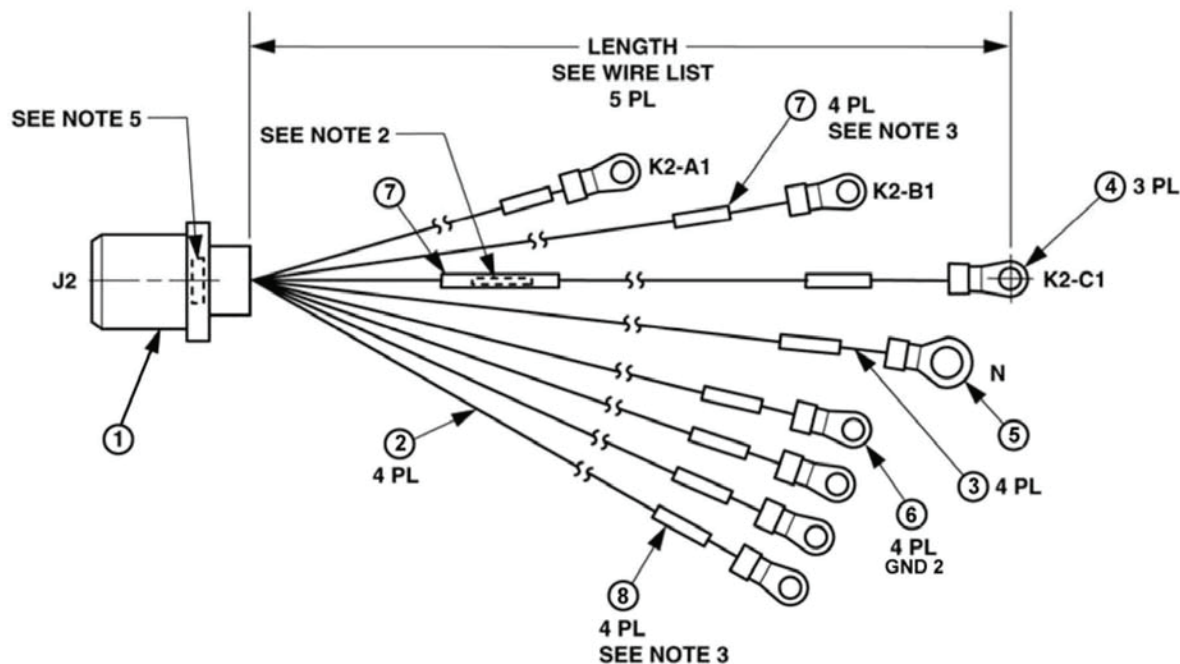
P/N 13229E5809-3, 4 (AN/MJQ-41, A MODEL), WIRING HARNESS, W9 AND W10 (A MODEL)

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
MANUFACTURED ITEM, WIRING HARNESS W10 (B & C MODELS)**

**PARTS LIST**

ITEM NO.	PART NO.	CAGE NO.	QTY REQD.	DESCRIPTION	SPECIFICATION OR NSN
1	MS90558C52413P		1	CONNECTOR, RECEPTACLE, ELECTRICAL	
2	M22759/16-4-9		AR	WIRE, ELECTRICAL, 4 AWG, WHT	MIL-W-22759/16
3	M22759/16-02-9		AR	WIRE, ELECTRICAL, 2/0 AWG, WHT	MIL-W-22759/16
4	13217E3858-16		3	TERMINAL LUG, 2/0 AWG, .375 STUD SIZE	
5	J787-34		1	TERMINAL LUG, 2/0 AWG, .750 STUD SIZE	
6	13217E3858-6		4	TERMINAL LUG, 4 AWG, .250 STUD SIZE	
7	M23053/5-110-4		5	INSULATION SLEEVING, HEAT SHRINKABLE, .750 ID X 2.50 LONG	MIL-I-23053/5
8	M23053/5-108-4		4	INSULATION SLEEVING, HEAT SHRINKABLE, .500 ID X 2.50 LONG	MIL-I-23053/5

Figure 1. Wiring Harness, W10 (B & C Models) (Sheet 1 of 2).

NOTES:

- 1 ASSEMBLE WIRE, FIND NO. 2 AND 3, INTO CONNECTOR, FIND NO. 1, IN ACCORDANCE WITH MIL-DTL-22992, CLASS L.
2. HOT STAMP "W10" AND "97403-13229E5809-4" ON SLEEVING, FIND NO. 7. LOCATE AT MIDPOINT OF WIRE.
3. HOT STAMP SLEEVING, FIND NOS. 7 AND 8, WITH WIRE ADDRESS, WITHIN 2 INCHES OF ITS TERMINATIONS. THE ADDRESS CONSISTS OF THE FROM TERMINATION, A DOUBLE-HEADED ARROW, AND THE TO TERMINATION.
4. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.
5. MARK CONNECTOR REFERENCE DESIGNATION IN .12 MIN HIGH CHARACTERS, IN ACCORDANCE WITH MIL-STD-130, METHOD OPTIONAL.

WIRE LIST

CONN REF DES	WIRE NO.	TERMINATION		TERMINATION		LENGTH +/- .12	WIRE FIND NO.	
		FROM	FIND NO.	TO	FIND NO.			
J2	1	J2-A	1	K2-A1	4	14.50	3	
	2	J2-B		K2-B1				
	3	J2-C		K2-C1				
	4	J2-N		N	5	28.00	2	
	5	J2-G1		GND 2	6	22.50		
	6	J2-G2						
	7	J2-G3						
	8	J2-G4						

Figure 1. Wiring Harness, W10 (B & C Models) (Sheet 2 of 2).

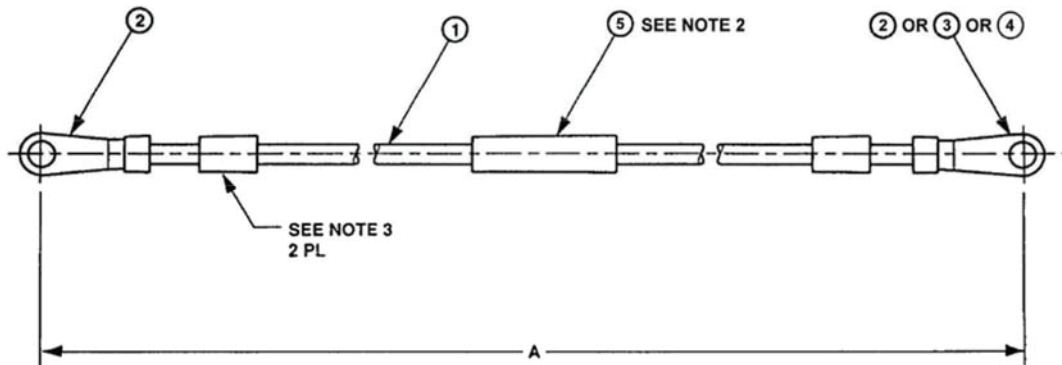
P/N 13229E5809-4 (B & C MODELS), WIRING HARNESS, W10 (B & C MODELS)

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
MANUFACTURED ITEM, ELECTRICAL LEADS, W11-16, W21, W22**

**PARTS LIST**

ITEM NO.	PART NO.	CAGE NO.	QTY REQD.			DESCRIPTION	SPECIFICATION OR NSN
			-7 THRU -9 AND -17 THRU -19	-20	-23		
1	M22759/16-02-9		AR	AR	AR	WIRE, ELECTRICAL	MIL-W-22759/16
2	13217E3858-16		1	2	1	TERMINAL LUG, 2/0 AWG, .375 STUD SIZE	
3	J787-34		1	-	-	TERMINAL LUG, 2/0 AWG, .750 STUD SIZE	
4	13229E5706-23		-	-	1	TERMINAL LUG, 2/0 AWG, .500 STUD SIZE	
5	M23053/5-109-4		3	3	3	INSULATION SLEEVING, HEAT SHRINKABLE, .750 ID X L AS REQUIRED	MIL-I-23053/5

Figure 1. Electrical Leads, W11-16, W21, W22 (Sheet 1 of 2).

NOTES:

1. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-454, REQUIREMENT 19.
2. HOT STAMP "W_" , INDICATED IN WIRE LIST, AND "97403-13229E5810- " WITH APPROPRIATE DASH NO. ON SLEEVING, FIND NO. 5, IN ACCORDANCE WITH MIL-M-60903. LOCATE AT MIDPOINT OF WIRE.
3. HOT STAMP INSULATION SLEEVING, FIND NO. 5, WITH WIRE ADDRESS, WITHIN 2 INCHES OF ITS TERMINATIONS, IN ACCORDANCE WITH MIL-M-60903. THE ADDRESS CONSISTS OF THE FROM TERMINATION, A DOUBLE HEADED ARROW, AND THE TO TERMINATION.

WIRE LIST

DASH NO.	REF DES	TERMINATION		TERMINATION		DIM A	WIRE FIND NO.
		FROM	FIND NO.	TO	FIND NO.		
-7	W11	K1-A2	2	L1	3	12.50	1
-8	W12	K1-B2		L2			
-9	W13	K1-C2		L3			
-17	W14	K2-A2		L1			
-18	W15	K2-B2		L2			
-19	W16	K2-C2		L3			
-20	W21	GND-2		GND-1	2	6.50	
-23	W22	GND-1		GND	4	9.50	

Figure 1. Electrical Leads, W11-16, W21, W22 (Sheet 2 of 2).

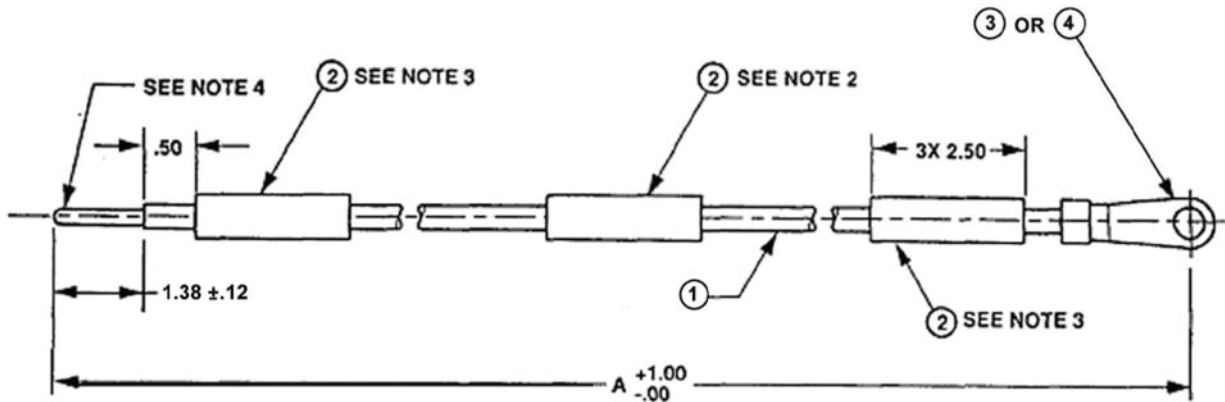
P/N 13229E5810-7, 8, 9, 17, 18, 19, 20, 23, ELECTRICAL LEADS, W11-16, W21, W22

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
MANUFACTURED ITEM, POWER LEADS, W1-W5



PARTS LIST

ITEM NO.	PART NO.	CAGE NO.	QTY REQD.		DESCRIPTION	SPECIFICATION OR NSN
			-7 THRU -9 AND -17 THRU -19	-14		
1	M22759/16-02-9		1	1	WIRE, ELECTRICAL, 2/0 AWG, WHT	MIL-W-22759/16
2	M23053/5-109-4		3	3	INSULATION SLEEVING, HEAT SHRINKABLE	MIL-I-23053/5
3	13217E3858-16		1	-	TERMINAL LUG, CRIMP, 2/0 AWG, .375 STUD SIZE	
4	J787-34		-	1	TERMINAL LUG, CRIMP, 2/0 AWG, .750 STUD SIZE	

Figure 1. Power Leads, W1-W5 (Sheet 1 of 2).

NOTES:

1. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-454, REQUIREMENT 19.
2. HOT STAMP "W_" , INDICATED IN WIRE LIST, AND "97403-13229E5811- " WITH APPROPRIATE DASH NO. ON SLEEVING, FIND NO. 2, IN ACCORDANCE WITH MIL-M-60903. LOCATE AT MIDPOINT OF WIRE.
3. HOT STAMP INSULATION SLEEVING, FIND NO. 2, WITH WIRE ADDRESS, WITHIN 2 INCHES OF ITS TERMINATIONS, IN ACCORDANCE WITH MIL-M-60903. THE ADDRESS CONSISTS OF THE FROM TERMINATION, A DOUBLE HEADED ARROW, AND THE TO TERMINATION.
4. STRIP WIRE IN ACCORDANCE WITH WIRE LIST AND TIN EXPOSED CONDUCTOR FOR A DISTANCE OF .12 +/- .03 INCHES FROM CONDUCTOR END IN ACCORDANCE WITH MIL-STD-2000.

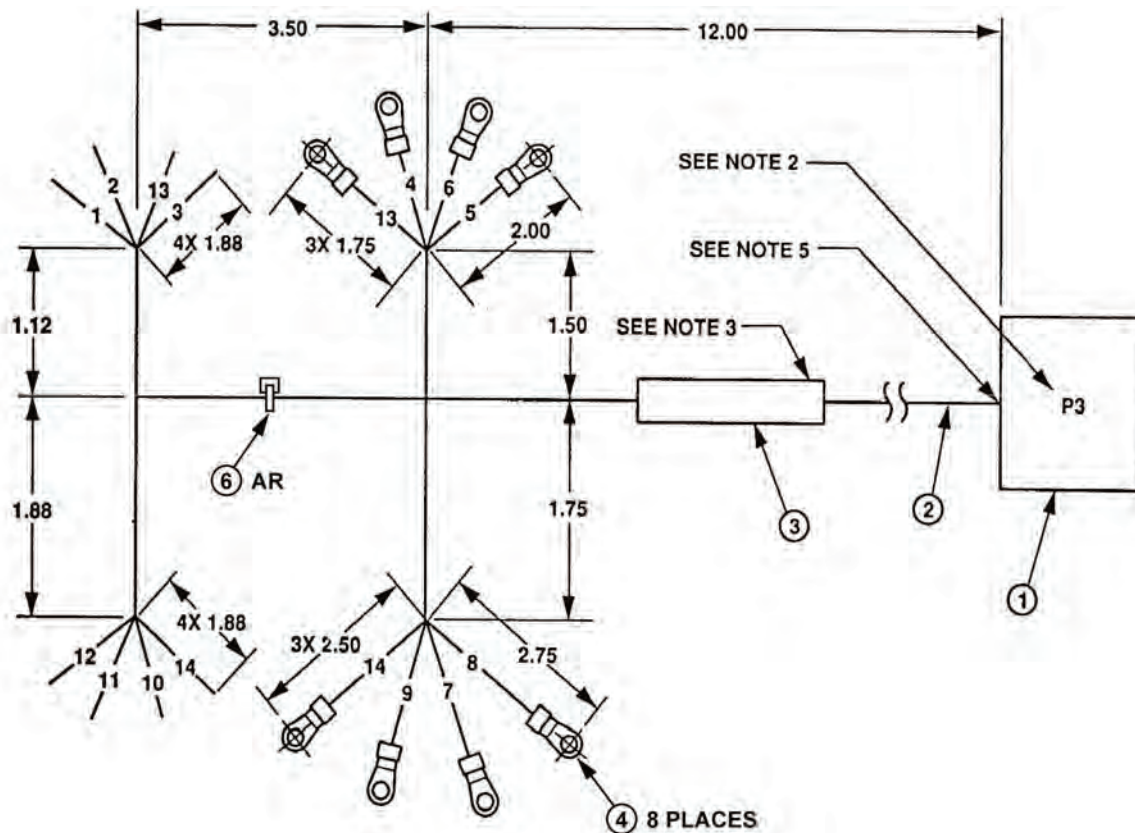
WIRE LIST

DASH NO.	REF DES	TERMINATION		TERMINATION		DIM A	WIRE FIND NO.
		FROM	FIND NO.	TO	FIND NO.		
-11	W1	G1-L1	-	K1-A1	3	32.00	1
-12	W2	G1-L2	-	K1-B1	3	37.00	1
-13	W3	G1-L3	-	K1-C1	3	42.00	1
-14	W4	G1-N	-	L0(N)	4	43.00	1
-15	W5	G1-GND	-	GND-1	3	33.00	1

Figure 1. Power Leads, W1-W5 (Sheet 2 of 2).**P/N 13229E5811-11, 12, 13, 14, 15, POWER LEADS, W1-W5****END OF TASK****END OF WORK PACKAGE**

FIELD MAINTENANCE

**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
MANUFACTURED ITEM, HARNESS ASSEMBLY, W20 (A MODEL)**



PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	MS3106R20-27P	1	CONNECTOR, PLUG, ELECTRICAL	
2	M22759/16-20-9	AR	WIRE, ELECTRICAL, 20 AWG, WHT	MIL-W-22759/16
3	M23053/5-107-9	1	INSULATION SLEEVING, HEAT SHRINK, 2.50 L	MIL-I-23053/5
4	MS25036-101	8	TERMINAL LUG, .22-18 AWG, NO. 6 STUD	
5	Sn60Pb40	AR	SOLDER	QQ-S-571
6	MS3367-1-9	AR	STRAP, TIE DOWN, ELECTRICAL	

Figure 1. Harness Assembly, W20 (A Model) (Sheet 1 of 2).

NOTES:

1. USE TIEDOWN STRAPS, FIND NO. 6, TO BUNDLE WIRES AT INTERVALS OF 3.00 MAX.
2. MARK REFERENCE DESIGNATION "P3" IN ACCORDANCE WITH MIL-STD-130, METHOD OPTIONAL.
3. HOT STAMP "W20" AND "97403-13229E5837" ON SLEEVING, FIND NO. 3, IN ACCORDANCE WITH MIL-M-60903. LOCATE APPROXIMATELY AT MIDPOINT OF WIRE.
4. SOLDER CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-2000, USING SOLDER FIND NO. 5.
5. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.

WIRE LIST

WIRE NO.	TERMINATION		TERMINATION		WIRE FIND NO.	REMARKS
	FROM	FIND NO.	TO	FIND NO.		
1	XDS1-1		P3-A	1	2	
2	XDS1-2		P3-B			
3	XDS3-2		P3-C			
4	S1-3	4	P3-D			SEE NOTE 1
5	S1-5		P3-F			SEE NOTE 1
6	S1-6		P3-G			SEE NOTE 1
7	S2-6		P3-H			SEE NOTE 1
8	S2-5		P3-I			SEE NOTE 1
9	S2-3		P3-K			SEE NOTE 1
10	XDS4-2		P3-L			
11	XDS2-1		P3-M			
12	XDS2-2		P3-N			
13	XDS3-1		S1-3	4		SEE NOTE 1
14	XDS4-1		S2-3			SEE NOTE 1

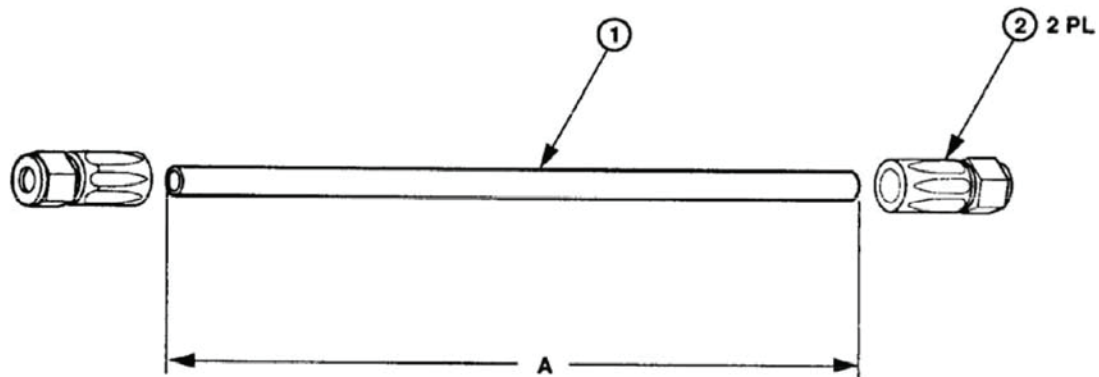
Figure 1. Harness Assembly, W20 (A Model) (Sheet 2 of 2).

P/N 13229E5837 (AN/MJQ-41, A MODEL), HARNESS ASSEMBLY, W20 (A MODEL)

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
MANUFACTURED ITEM, FUEL DRAIN ASSEMBLY

PARTS LIST

ITEM NO.	PART NO.	CAGE NO.	QTY REQD.	DESCRIPTION	SPECIFICATION OR NSN
1	MS52103-2		42"	HOSE, NONMETALLIC	
1	MS52103-2		39"	HOSE, NONMETALLIC	
2	MS24587-5		2	FLARED, FITTING	

NOTES:

1. CUT NONMETALLIC HOSE TO LENGTH (42" LENGTH FOR PU-805 AND PU-806; 39" LENGTH FOR PU-805B AND PU-806B). USE OLD HOSE AS A TEMPLATE FOR APPROXIMATE LENGTH.
2. INSTALL FITTING FLARED AT EACH END OF NONMETALLIC HOSE AND TURN COUNTER-CLOCKWISE TO INSTALL.

Figure 1. Fuel Drain Assembly.

P/N MS52103A050440R, FUEL DRAIN ASSEMBLY

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

TORQUE LIMITS

TORQUE TABLES

How To Use Torque Tables

1. Measure the diameter of the screw you are installing.



Figure 1. Measuring Screw.

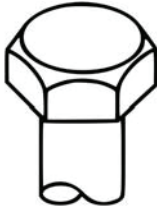
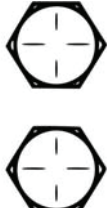
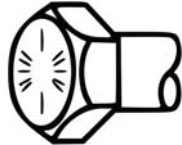
2. Count the number of threads per inch or use a pitch grade.
3. Under the heading "Cap Screw Body Size", look down the left-hand column until you find the diameter of the screw you are installing. (There will usually be two lines beginning with the same size).
4. In the second column under "Body Size", find the numbers of threads per inch that matches the number of threads you counted in Step 2. (Not required for metric screws).



Figure 2. Capscrew Head Markings.

5. To find the grade screw you are installing, match the markings on the head to the correct picture of Capscrew Head Markings in the torque table.

Table 1. Torque Limits.

SAE Grade Number		1 or 2		5		6 or 7		8	
Quality of Material		Indeterminate		Minimum Commercial		Medium Commercial		Best Commercial	
Capscrew Head Markings									
NOTE Head marking may vary with different manufacturers.									
Capscrew Body Size		Torque		Torque		Torque		Torque	
(Inches)	(Thread)	Ft Lb	(N.m)	Ft Lb	(N.m)	Ft Lb	(N.m)	Ft Lb	(N.m)
1/4	20	5	(7)	8	(11)	10	(14)	12	(16)
	28	6	(8)	10	(14)			14	(19)
5/16	18	11	(15)	17	(23)	19	(26)	24	(33)
	24	13	(18)	19	(16)			27	(37)
3/8	16	18	(24)	31	(42)	34	(46)	44	(60)
	24	20	(27)	35	(47)			49	(66)
7/16	14	28	(38)	49	(66)	55	(75)	70	(95)
	20	30	(41)	55	(75)			78	(106)
1/2	13	39	(53)	75	(102)	85	(115)	105	(142)
	20	41	(56)	85	(115)			120	(163)
9/16	12	51	(69)	110	(149)	120	(163)	155	(210)
	18	55	(75)	120	(163)			170	(231)
5/8	11	83	(113)	150	(203)	167	(226)	210	(285)
	18	95	(129)	170	(231)			240	(325)
3/4	10	105	(142)	270	(366)	280	(380)	375	(508)
	16	115	(156)	295	(400)			420	(569)
7/8	9	160	(217)	395	(536)	440	(597)	605	(820)
	14	175	(237)	435	(590)			675	(915)
1	8	235	(319)	590	(800)	660	(895)	910	(1234)
	14	250	(339)	660	(895)			990	(1342)

CAUTION

If replacement capscrews are of a higher grade than originally supplied, use torque specifications for that placement. This will prevent equipment damage due to over torquing.

NOTE

Always use the torque values listed above when specific torque values are not available.

END OF WORK PACKAGE

CHAPTER 7

OPERATOR AND FIELD PARTS INFORMATION

FOR

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER

UNITS AND POWER PLANTS

CHAPTER 7
PARTS INFORMATION

WORK PACKAGE INDEX

<u>Title</u>	<u>WP Sequence No.</u>
Introduction.....	0062
GROUP 00 Power Plant/Power Units.....	0063
GROUP 00 Power Plant/Power Units.....	0064
GROUP 00 Power Plant/Power Units.....	0065
GROUP 00 Power Plant/Power Units.....	0066
GROUP 01 Generator Set.....	0067
GROUP 02 Electrical System.....	0068
GROUP 0201 Cable Assembly, W19	0069
GROUP 0202 Switch Box Assembly	0070
GROUP 0202 Switch Box Assembly	0071
GROUP 020201 Load Terminal Wrench Assembly	0072
GROUP 020201 Load Terminal Wrench Assembly	0073
GROUP 020202 Control Panel Assembly	0074
GROUP 020202 Control Panel Assembly	0075
GROUP 02020201 Harness Assembly, W20	0076
GROUP 02020202 Light, Indicator.....	0077
GROUP 02020202 Light, Indicator.....	0078
GROUP 020203 Terminals, Load.....	0079
GROUP 020203 Terminals, Load.....	0080
GROUP 020204 Leads/ Harnesses, W9.....	0081
GROUP 020205 Leads/Harnesses, W10	0082
GROUP 020205 Leads/Harnesses, W10	0083
GROUP 020206 Leads/Harnesses, W17	0084
GROUP 020207 Leads/Harnesses, W7	0085
GROUP 020207 Leads/Harnesses, W7	0086
GROUP 020208 Leads/Harnesses, W11-W16, W21, W22.....	0087
GROUP 020209 Bus Bar.....	0088
GROUP 020210 Contactor	0089
GROUP 020210 Contactor	0090
GROUP 020211 Leads/Harnesses, W1-W5	0091
GROUP 020212 Power Lead/Harness, W18	0092
GROUP 020213 Switch Box Support.....	0093
GROUP 03 Accessories	0094

<u>Title</u>	<u>WP Sequence No.</u>
GROUP 03 Accessories	0095
GROUP 03 Accessories	0096
GROUP 04 Trailer Assembly.....	0097
GROUP 04 Trailer Assembly.....	0098
GROUP 04 Trailer Assembly.....	0099
GROUP 04 Trailer Assembly.....	0100
GROUP 04 Trailer Assembly.....	0101
GROUP 04 Trailer Assembly.....	0102
GROUP 04 Front Platform.....	0103
GROUP 04 Trailer Assembly.....	0104
GROUP 04 Trailer Assembly.....	0105
Bulk Items.....	0106
Special Tools List	0107
NSN Index	0108
P/N Index.....	0109

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL) INTRODUCTION

INTRODUCTION

SCOPE

This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of operator and field maintenance of the power unit/power plant. It authorizes the requisitioning, issue, and disposition of spares, repair parts, and special tools as indicated by the source, maintenance, and recoverability (SMR) codes.

GENERAL

In addition to the Introduction work package, this RPSTL is divided into the following work packages.

1. **Repair Parts List Work Packages.** Work packages containing lists of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. These work packages also include parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Sending units, brackets, filters, and bolts are listed with the component they mount on. Bulk materials are listed by item name in FIG. BULK at the end of the work packages. Repair parts kits are listed separately in their own functional group and work package. Repair parts for reparable special tools are also listed in a separate work package. Items listed are shown on the associated illustrations.
2. **Special Tools List Work Packages.** Work packages containing lists of special tools, special TMDE, and special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in the DESCRIPTION AND USABLE ON CODE (UOC) column). Tools that are components of common tool sets and/or Class VII are not listed.
3. **Cross-Reference Indexes Work Packages.** There are 2 crossreference indexes work packages in this RPSTL: the National Stock Number (NSN) Index work package, and the Part Number (P/N) Index work package. The National Stock Number Index work package refers you to the figure and item number. The Part Number Index work package refers you to the figure and item number.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES

ITEM NO. (Column (1)). Indicates the number used to identify items called out in the illustration.

SMR CODE (Column (2)). The SMR code containing supply/requisitioning information, maintenance level authorization criteria, and disposition instruction, as shown in the following breakout. This entry may be subdivided into 4 subentries, one for each service.

Table 1. SMR Code Explanation.

<u>Source Code</u>		<u>Maintenance Code</u>	<u>Recoverability Code</u>
<u>XX</u>		<u>XX</u>	<u>X</u>
1st two positions:	3rd position:	4th position:	5th position:
How to get an item.	Who can install, replace, or use the item.	Who can do complete repair* on the item.	Who determines disposition action on unserviceable items.

*Complete Repair: Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

Source Code. The source code tells you how you get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanations of source codes follow:

Source Code**Application/Explanation**

PA
PB
PC
PD
PE
PF
PG
PH
PR
PZ

NOTE

Items coded PC are subject to deterioration.

Stock items; use the applicable NSN to requisition/request items with these source codes. They are authorized to the level indicated by the code entered in the third position of the SMR code.

KD
KF
KB

Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance level indicated in the third position of the SMR code. The complete kit must be requisitioned and applied.

MF-Made at field
MH-Made at below depot/sustainment level
ML-Made at SRA
MD-Made at depot
MG-Navy only

Items with these codes are not to be requisitioned/requested individually. They must be made from bulk material which is identified by the part number in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the bulk material group work package of the RPSTL. If the item is authorized to you by the third position code of the SMR code, but the source code indicates it is made at higher level, order the item from the higher level of maintenance.

AF-Assembled by field
AH-Assembled by below depot sustainment level
AL-Assembled by SRA
AD-Assembled by depot
AG-Navy only

Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the third position of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the higher level of maintenance.

XA
XB
XC
XD

Do not requisition an "XA" coded item. Order the next higher assembly. (Refer to NOTE below.)

If an item is not available from salvage, order it using the CAGEC and part number.

Installation drawings, diagrams, instruction sheets, field service drawings; identified by manufacturer's part number.

Item is not stocked. Order an XD-coded item through local purchase or normal supply channels using the CAGEC and part number given, if no NSN is available.

NOTE

Cannibalization or controlled exchange, when authorized, may be used as a source of supply for items with the above source codes except for those items source coded "XA" or those aircraft support items restricted by requirements of AR 750-1.

Maintenance Code. Maintenance codes tell you the level(s) of maintenance authorized to use and repair support items. The maintenance codes are entered in the third and fourth positions of the SMR code as follows:

Third Position. The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to the following levels of maintenance:

<u>Maintenance Code</u>	<u>Application/Explanation</u>
F -	Field maintenance can remove, replace, and use the item.
H -	Below Depot Sustainment maintenance can remove, replace, and use the item.
L -	Specialized repair activity can remove, replace, and use the item.
G -	Afloat and ashore intermediate maintenance can remove, replace, and use the item (Navy only)
K -	Contractor facility can remove, replace, and use the item.
Z -	Item is not authorized to be removed, replaced, or used at any maintenance level
D -	Depot can remove, replace, and use the item.

*NOTE - Army may use C in the third position. However, for joint service publications, Army will use O.

Fourth Position. The maintenance code entered in the fourth position tells you whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (perform all authorized repair functions).

NOTE

Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes.

<u>Maintenance Code</u>	<u>Application/Explanation</u>
F -	Field is the lowest level that can do complete repair of the item.
H -	Below Depot Sustainment is the lowest level that can do complete repair of the item.
L -	Specialized repair activity is the lowest level that can do complete repair of the item.
D -	Depot is the lowest level that can do complete repair of the item.
G -	Both afloat and ashore intermediate levels are capable of complete repair of item. (Navy only)
K -	Complete repair is done at contractor facility
Z -	Nonreparable. No repair is authorized.
B -	No repair is authorized. No parts or special tools are authorized for maintenance of "B" coded item. However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

Recoverability Code. Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is shown in the fifth position of the SMR code as follows:

<u>Recoverability Code</u>	<u>Application/Explanation</u>
Z -	Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the third position of the SMR code.
F -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the field level.
H -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the below depot sustainment level.
D -	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item are not authorized below depot level.
L -	Reparable item. Condemnation and disposal not authorized below Specialized Repair Activity (SRA).
A -	Item requires special handling or condemnation procedures because of specific reasons (such as precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.
G -	Field level reparable item. Condemn and dispose at either afloat or ashore intermediate levels. (Navy only)
K -	Reparable item. Condemnation and disposal to be performed at contractor facility.

NSN (Column (3)). The NSN for the item is listed in this column.

CAGEC (Column (4)). The Commercial and Government Entity Code (CAGEC) is a five-digit code which is used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.

PART NUMBER (Column (5)). Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

NOTE

When you use an NSN to requisition an item, the item you receive may have a different part number from the number listed.

DESCRIPTION AND USABLE ON CODE (UOC) (Column (6)). This column includes the following information:

1. The federal item name, and when required, a minimum description to identify the item.
2. Part numbers of bulk materials are referenced in this column in the line entry to be manufactured or fabricated.
3. Hardness Critical Item (HCI). A support item that provides the equipment with special protection from electromagnetic pulse (EMP) damage during a nuclear attack.
4. The statement END OF FIGURE appears just below the last item description in column (6) for a given figure in both the repair parts list and special tools list work packages.

QTY (Column (7)). The QTY (quantity per figure) column indicates the quantity of the item used in the breakout shown on the illustration/figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column instead of a quantity indicates that the quantity is variable and quantity may change from application to application.

EXPLANATION OF CROSS-REFERENCE INDEXES WORK PACKAGES FORMAT AND COLUMNS

1. National Stock Number (NSN) Index Work Package. NSN's in this index are listed in National Item Identification Number (NIIN) sequence.
 STOCK NUMBER Column. This column lists the NSN in NIIN sequence. The NIIN consists of the last nine digits of the NSN. When using this column to locate an item, ignore the first four digits of the NSN. However, the complete NSN should be used when ordering items by stock number.
 For example, if the NSN is 5385-01-574-1476, the NIIN is 01-574-1476.

FIG. Column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in the repair parts list and special tools list work packages.

ITEM Column. The item number identifies the item associated with the figure listed in the adjacent FIG. column. This item is also identified by the NSN listed on the same line.

2. Part Number (P/N) Index Work Package. Part numbers in this index are listed in ascending alphanumeric sequence (vertical arrangement of letter and number combinations which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

PART NUMBER Column. Indicates the part number assigned to the item.

FIG. Column. This column lists the number of the figure where the item is identified/located in the repair parts list and special tools list work packages.

ITEM Column. The item number is the number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

SPECIAL INFORMATION

UOC. The UOC appears in the lower left corner of the Description Column heading. Usable on codes are shown as "UOC: ..." in the Description Column (justified left) on the first line under the applicable item/nomenclature. Uncoded items are applicable to all models. Identification of the UOCs used in the RPSTL are:

<u>Code</u>	<u>Used On</u>
YHJ	AN/MJQ-41
44F	AN/MJQ-41B
YFC	PU-805
44J	PU-805B
EWA	PU-806
44K	PU-806B

Fabrication Instructions. Bulk materials required to manufacture items are listed in the bulk material functional group of this RPSTL. Part numbers for bulk material are also referenced in the Description Column of the line item entry for the item to be manufactured/fabricated. Detailed fabrication instructions for items source coded to be manufactured or fabricated are found in WP 0050.

Index Numbers. Items which have the word BULK in the figure column will have an index number shown in the item number column. This index number is a cross-reference between the NSN / Part Number (P/N) Index work packages and the bulk material list in the repair parts list work package.

Illustrations List. The illustrations in this RPSTL contain field authorized items. The tabular list in the repair parts list work package contains only those parts coded "F" in the third position of the SMR code, therefore, there may be a break in the item number sequence.

HOW TO LOCATE REPAIR PARTS

1. When NSNs or Part Numbers Are Not Known.

First. Using the table of contents, determine the assembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and lists are divided into the same groups.

Second. Find the figure covering the functional group or the subfunctional group to which the item belongs.

Third. Identify the item on the figure and note the number(s).

Fourth. Look in the repair parts list work packages for the figure and item numbers. The NSNs and part numbers are on the same line as the associated item numbers.

2. When NSN Is Known.

First. If you have the NSN, look in the STOCK NUMBER column of the NSN index work package. The

NSN is arranged in NIIN sequence. Note the figure and item number next to the NSN.

Second. Turn to the figure and locate the item number. Verify that the item is the one you are looking for.

3. When Part Number Is Known.

First. If you have the part number and not the NSN, look in the PART NUMBER column of the part number index work package. Identify the figure and item number.

Second. Look up the item on the figure in the applicable repair parts list work package.

ABBREVIATIONS

Not Applicable

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 00 POWER PLANT/POWER UNITS

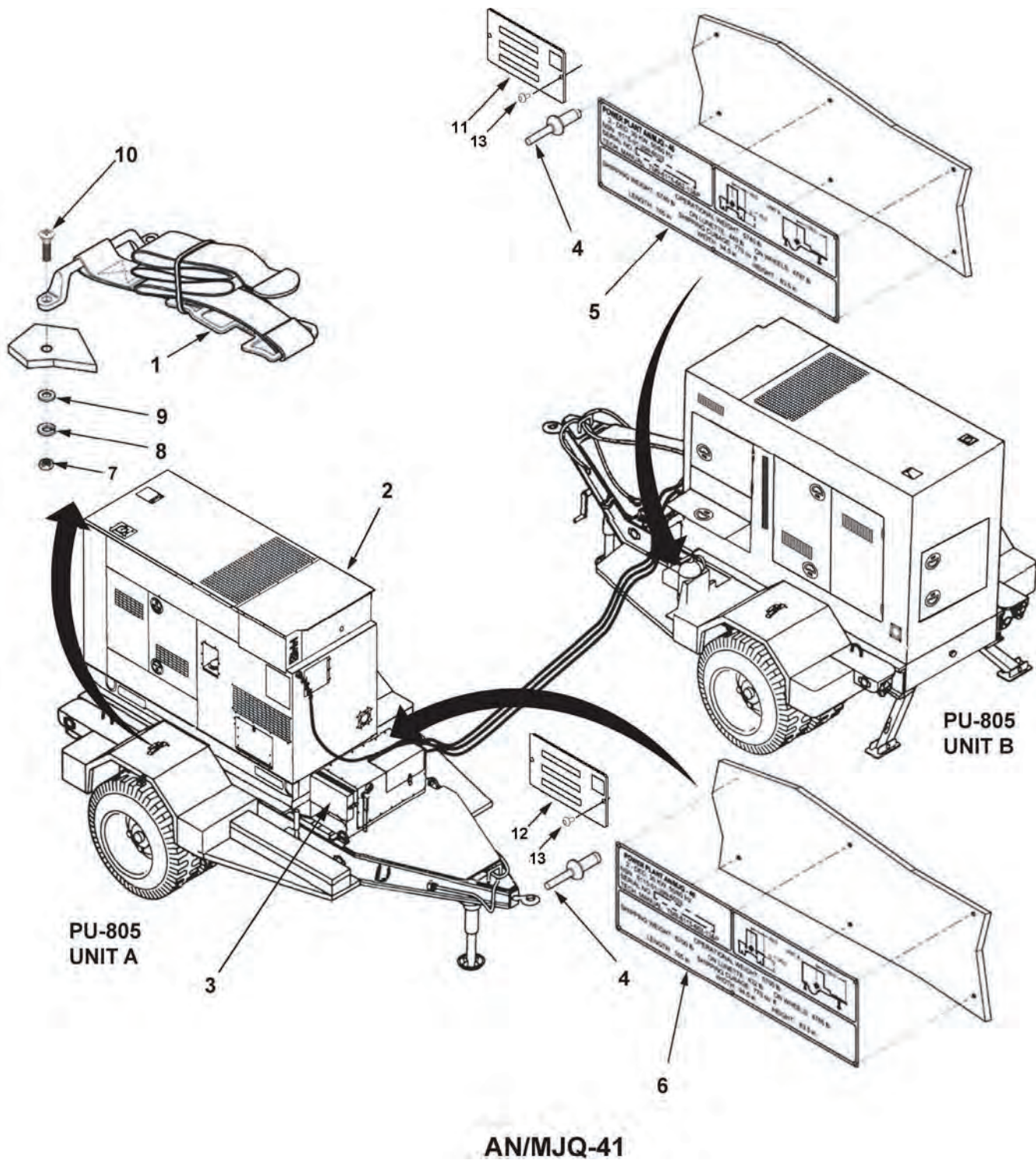


Figure 1. Power Plant, AN/MJQ-41.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 00 POWER PLANT/POWER UNITS FIG. 1 POWER PLANT, AN/MJQ-41						
1	PAFZZ	6115-01-280-0063	97403	13218E5091	. .STRAP ASSEMBLY UOC: YHJ	8
2	PDFZZ	6115-01-317-2134	97403	13229E5755	POWER UNIT, TACTICAL QUIET GENERATOR SET, SIZE 60, MODE I (60 kW, 50/60 HZ), PU-805 (SEE UOC: YHJ	2
3	XCFZZ		97403	13229E5710-ELE	. ELECTRICAL SYSTEM (SEE UOC: YHJ	1
4	PAFZZ	5320-00-957-2507	80205	MS20604AD6W4	. RIVET, BLIND UOC: YHJ	12
5	XBFZZ		97403	13229E5666-43	. PLATE, IDENT/TRANSP DATA (2-WHEEL CONFIGURATION) UOC: YHJ	1
5	XBFZZ		97403	13229E5666-9	. PLATE, IDENT/TRANSP DATA (4-WHEEL CONFIGURATION) UOC: YHJ	1
6	XBFZZ		97403	13229E5666-44	. PLATE, IDENT/TRANSP DATA (2-WHEEL CONFIGURATION) UOC: YHJ	1
6	XBFZZ		97403	13229E5666-10	. PLATE, IDENT/TRANSP DATA (4-WHEEL CONFIGURATION) UOC: YHJ	1
7	PAFZZ	5310-00-252-8748	80205	MS35650-3314	. NUT, PLAIN, HEXAGON UOC: YHJ	16
8	PAFZZ	5310-00-045-3296	80205	MS35338-43	. WASHER, LOCK UOC: YHJ	16
9	PAFZZ	5310-01-386-0481	96906	MS51412-21	. WASHER, FLAT UOC: YHJ	16
10	PAFZZ	5305-00-071-1323	96906	MS51960-66	. SCREW, MACHINE UOC: YHJ	16
11	MDFZZ		97403	13230E7022-37	. PLATE, IDENTIFICATION UOC: YHJ	1
12	MDFZZ		97403	13230E7022-36	. PLATE, IDENTIFICATION UOC: YHJ	1
12	PAFZZ		97403	13230E6383-4-3	. RIVET, BLIND, UNIVERSAL UOC: YHJ	4

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 00 POWER PLANT/POWER UNITS

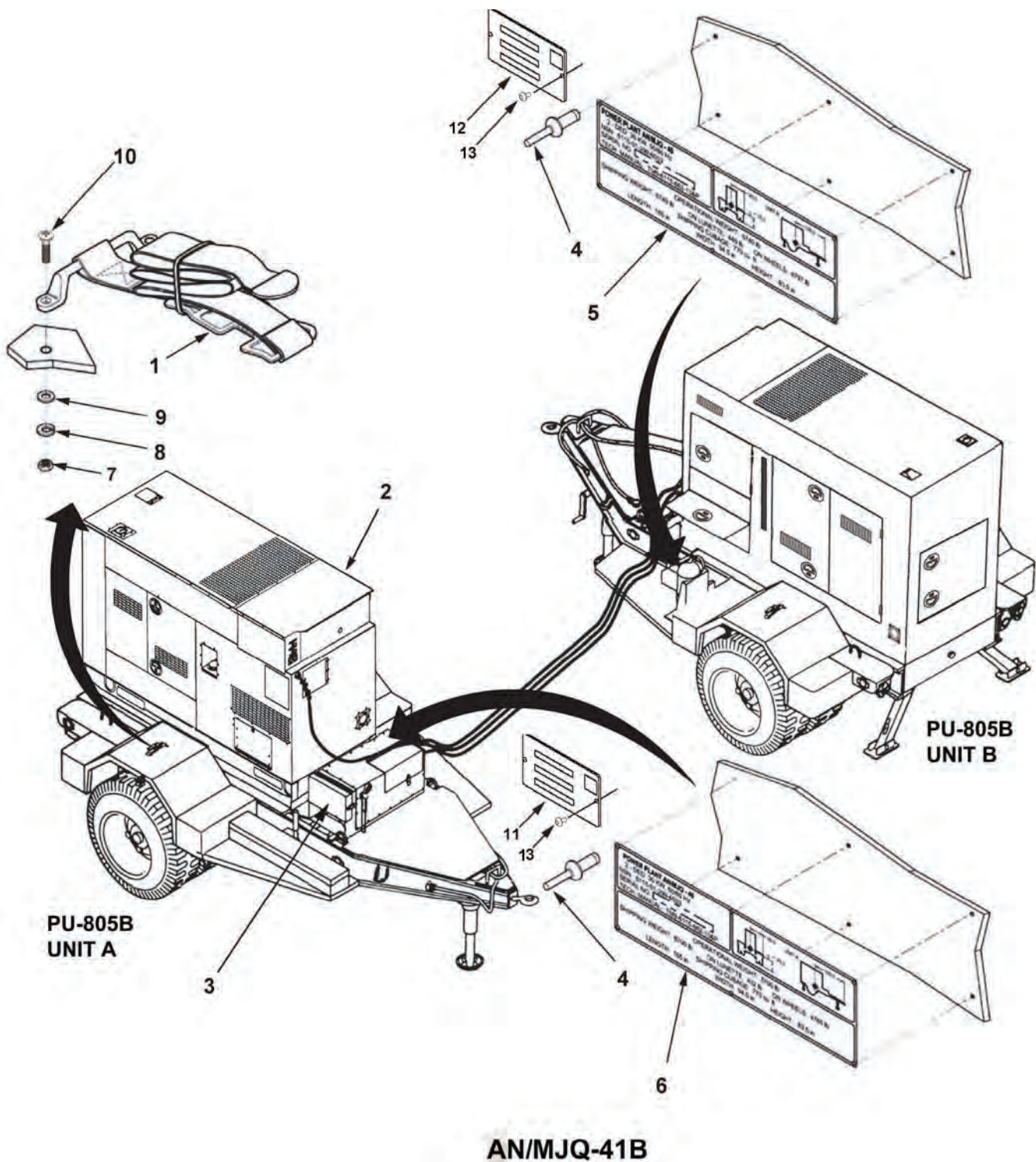


Figure 2. Power Plant, AN-MJQ-41B.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 00 POWER PLANT/POWER UNITS						
FIG. 2 POWER PLANT, AN-MJQ-41B						
1	PAFZZ	6115-01-280-0063	97403	13218E5091	. STRAP ASSEMBLY UOC: 44F	8
2	PDFZZ	6115-01-471-1508	97403	13230E6851	POWER UNIT, TACTICAL QUIET GENERATOR SET, SIZE 60, MODE I (60 kW, 50/60 HZ), PU-805B (SEE FIGURE 4 FOR PARTS BREAK- DOWN) UOC: 44F	2
3	XCFZZ		97403	13230E6854-ELE	. ELECTRICAL SYSTEM (SEE UOC: 44F	1
4	PAFZZ	5320-00-957-2507	80205	MS20604AD6W4	. RIVET, BLIND UOC: 44F	12
5	XBFZZ		97403	13229E5666-30	. PLATE, IDENT/TRANSP DATA UOC: 44F	1
6	XBFZZ		97403	13229E5666-29	. PLATE, IDENT/TRANSP DATA UOC: 44F	1
7	PAFZZ	5310-00-252-8748	80205	MS35650-3314	. NUT, PLAIN, HEXAGON UOC: 44F	16
8	PAFZZ	5310-00-045-3296	80205	MS35338-43	. WASHER, LOCK UOC: 44F	16
9	PAFZZ	5310-01-386-0481	96906	MS51412-21	. WASHER, FLAT UOC: 44F	16
10	PAFZZ	5305-00-071-1323	96906	MS51960-66	. SCREW, MACHINE UOC: 44F	16
11	MDFZZ		97403	13230E7022-38	. PLATE, IDENTIFICATION UOC: 44f	1
12	MDFZZ		97403	13230E7022-39	. PLATE, IDENTIFICATION UOC: 44f	1
13	PAFZZ		97403	13230E6383-4-3	. RIVET, BLIND, UNIVERSAL UOC: 44f	4
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 00 POWER PLANT/POWER UNITS

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 00 POWER PLANT/POWER UNITS FIG. 3 POWER UNITS, PU-805 AND PU-806						
1	PBFFF	6115-01-392-0296	97403	13229E9632	. TRAILER, 2 ½ TON (SEE FIGURE 35 FOR PARTS BREAKDOWN) UOC: YFC, EWA.....	2
2	PDFZZ	6115-01-274-7390	30554	MEP-806A	GENERATOR SET, TACTICAL QUIET 60 kW, 50/60 HZ (MEP-806A) (SEE FIGURE 5 FOR INSTALLATION) (SEE TM 9-6115-645-24P FOR PARTS BREAKDOWN) UOC: YFC	1
3	PDFZZ	6115-01-274-7395	30554	MEP-816A	GENERATOR SET, TACTICAL QUIET 60 kW, 400 HZ (MEP-816A) (SEE FIGURE 5 FOR INSTALLA- TION) (SEE TM 9-6115-645-24P FOR PARTS BREAKDOWN) UOC: EWA	1
4	PAFZZ	5320-00-957-2507	80205	MS20604AD6W4	. RIVET, BLIND UOC: YFC, EWA.....	12
5	XBFZZ		97403	13229E5666-37	. PLATE, IDENT/TRANSP DATA (2-WHEEL CONFIGURATION) UOC: YFC	1
5	XBFZZ		97403	13229E5666-21	. PLATE, IDENT/TRANSP DATA (4-WHEEL CONFIGURATION) UOC: YFC	1
6	XBFZZ		97403	13229E5666-38	. PLATE, IDENT/TRANSP DATA (2-WHEEL CONFIGURATION) UOC: EWA	1
6	XBFZZ		97403	13229E5666-22	. PLATE, IDENT/TRANSP DATA (4-WHEEL CONFIGURATION) UOC: EWA	1
7	MDFZZ		97403	13230E7022-19	. PLATE, IDENTIFICATION UOC: YFC, EWA.....	1
8	MDFZZ		97403	13230E7022-21	. PLATE, IDENTIFICATION UOC: YFC, EWA.....	1
9	PAFZZ		97403	13230E6383-4-3	. RIVET, BLIND, UNIVERSAL UOC: YFC, EWA.....	4
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 00 POWER PLANT/POWER UNITS

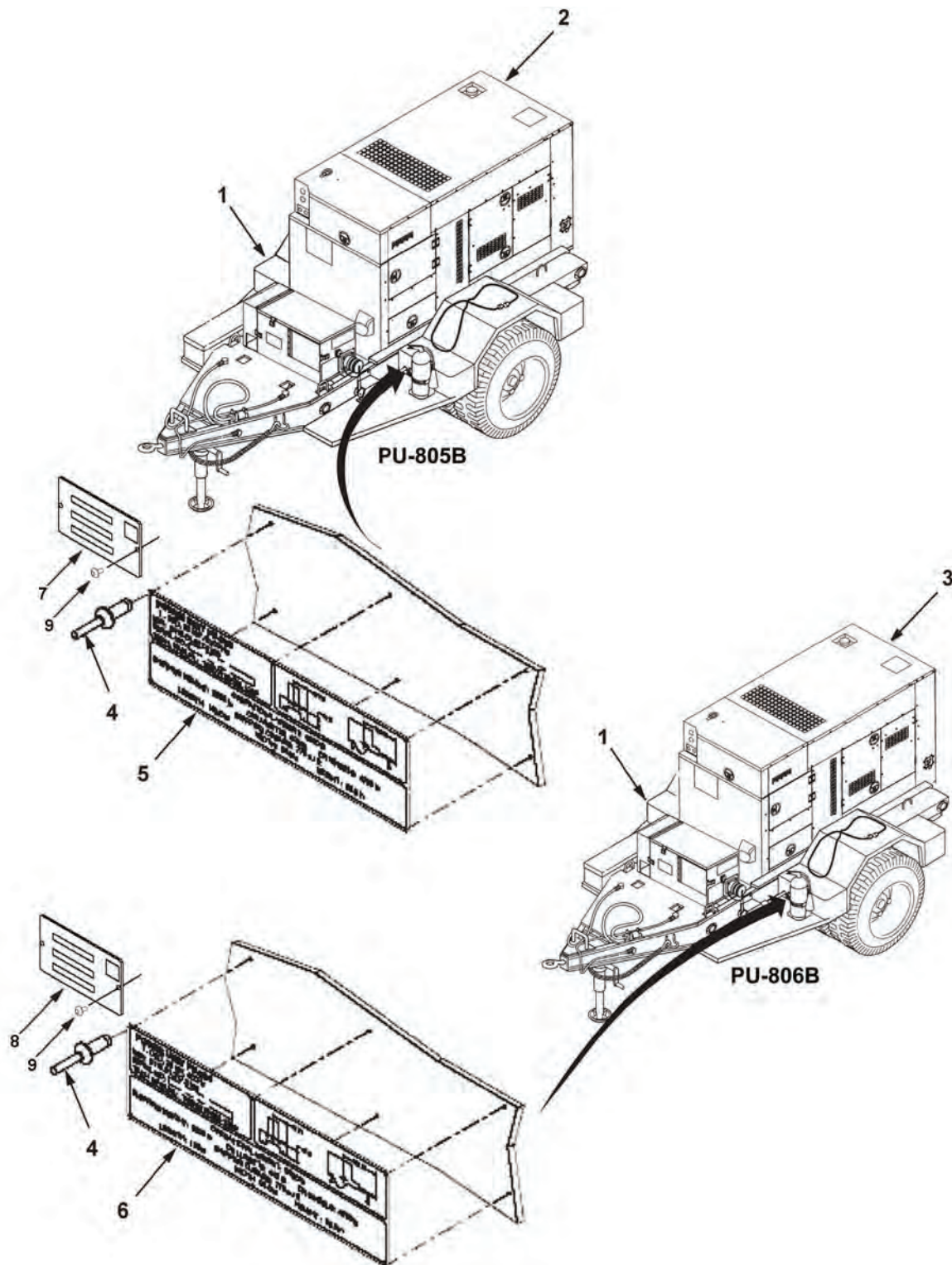


Figure 4. Power Units, PU-805B and PU-806B.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 00 POWER PLANT/POWER UNITS FIG. 4 POWER UNITS, PU-805B AND PU-806B						
1	PBFFF	6115-01-392-0296	97403	13229E9632	. TRAILER, 2 ½ TON (SEE FIGURE 35 FOR PARTS BREAKDOWN) UOC: 44J, 44K	2
2	PDFZZ	6115-01-462-0291	30554	MEP-806B	GENERATOR SET, TACTICAL QUIET 60 kW, 50/60 HZ (MEP-806B) (SEE FIGURE 5 FOR INSTALLATION) (SEE TM 9-6115-672-24P FOR PARTS BREAKDOWN) UOC: 44J	1
3	PDFZZ	6115-01-462-0292	30554	96-816	GENERATOR SET, TACTICAL QUIET 60 kW, 400 HZ (MEP-816B) (SEE FIGURE 5 FOR INSTALLA- TION) (SEE TM 9-6115-672-24P FOR PARTS BREAKDOWN) UOC: 44K	1
4	PAFZZ	5320-00-957-2507	80205	MS20604AD6W4	. RIVET, BLIND UOC: 44J, 44K	12
5	XBFZZ		97403	13229E5666-25	. PLATE, IDENT/TRANSP DATA UOC: 44J	1
6	XBFZZ		97403	13229E5666-26	. PLATE, IDENT/TRANSP DATA UOC: 44K	1
7	MDFZZ		97403	13230E7022-20	. PLATE, IDENTIFICATION UOC: 44J, 44K	1
8	MDFZZ		97403	13230E7022-22	. PLATE, IDENTIFICATION UOC: 44J, 44K	1
9	PAFZZ		97403	13230E6383-4-3	. RIVET, BLIND, UNIVERSAL UOC: 44J, 44K	4
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 01 GENERATOR SET

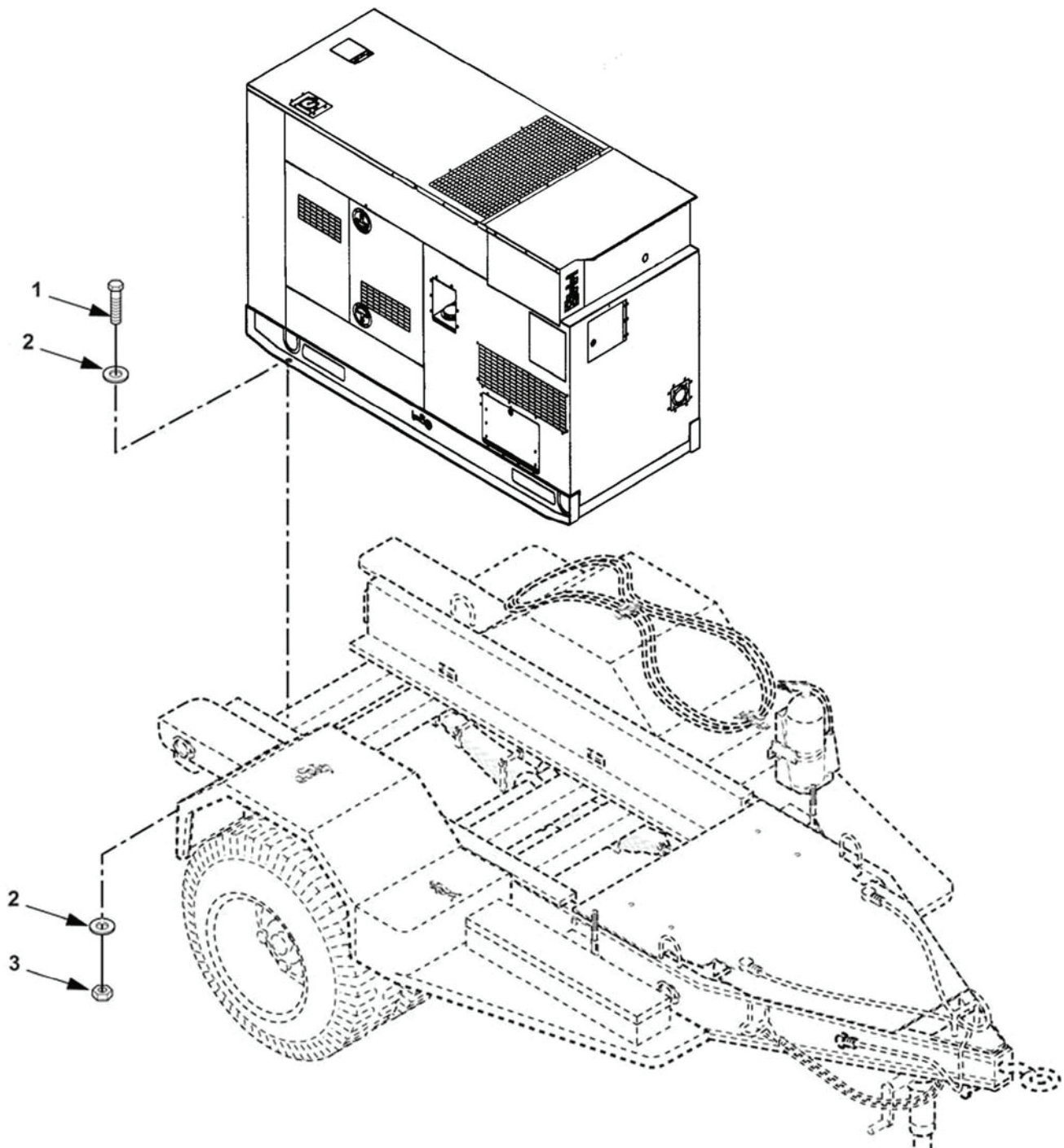


Figure 5. Generator Set.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 01 GENERATOR SET						
1	PAFZZ	5305-00-724-7221	80204	B1821BH063C175N	SCREW, CAP, HEXAGON UOC: YFC, 44J, EWA, 44K	4
2	PAFZZ	5310-01-242-2679	96906	MS51412-11	WASHER, FLAT UOC: YFC, 44J, EWA, 44K	8
3	PAFZZ	5310-00-269-4040	81349	M45913/1-10CG5C	NUT, SELF-LOCKING, HEXAGON UOC: YFC, 44J, EWA, 44K	4
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 02 ELECTRICAL SYSTEM

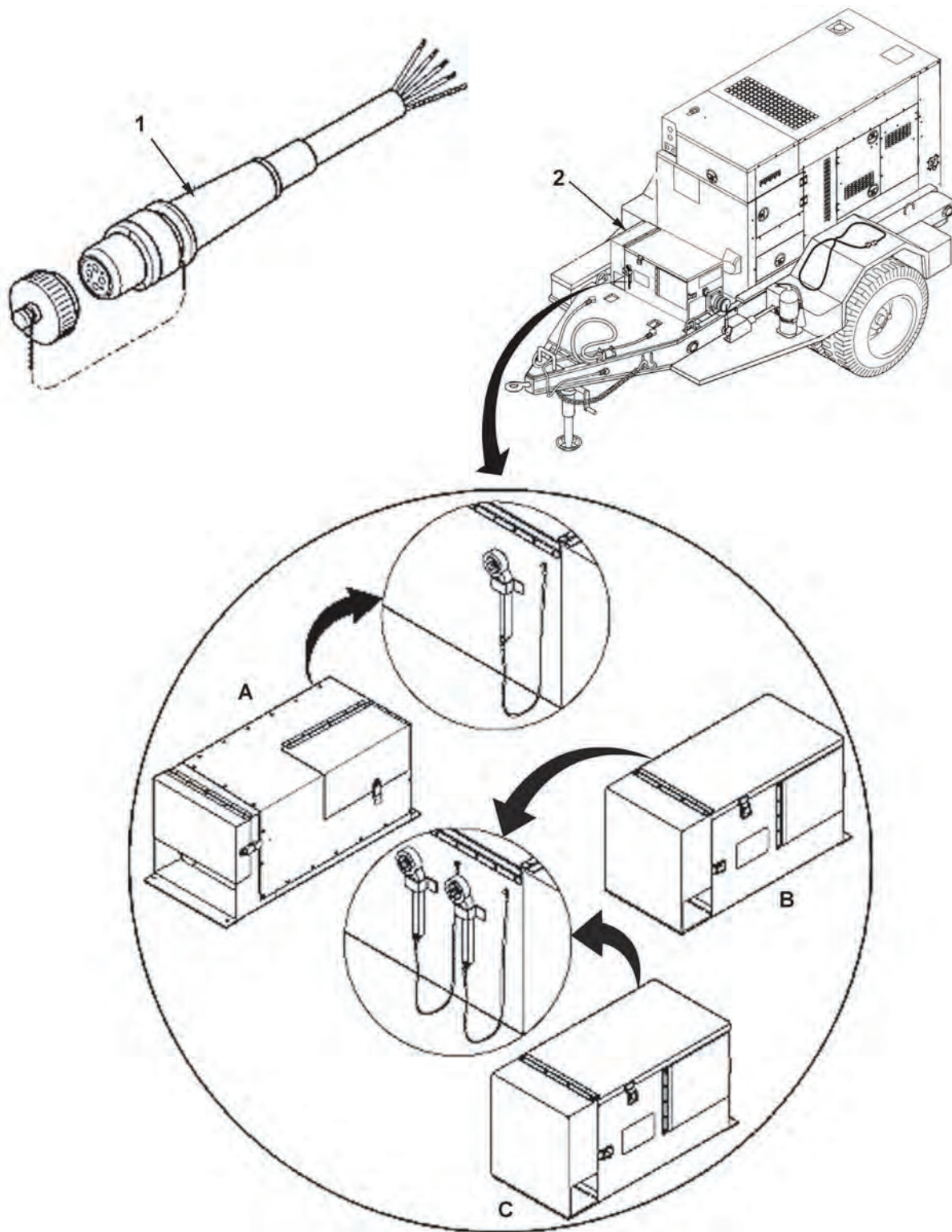


Figure 6. Electrical System.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 6 ELECTRICAL SYSTEM						
1	PBFFF	6145-01-440-5706	97403	13229E5741	CABLE ASSEMBLY, POWER (SEE FIGURE 7 FOR PARTS BREAK- DOWN) UOC: YHJ, 44F.....	1
2	PDFFF	5930-01-391-1529	97403	13229E5795-3	SWITCHBOX (A) (SEE FIGURE 9 FOR PARTS BREAKDOWN) UOC: YHJ	1
2	PDFFF	5930-01-391-1529	97403	13229E5795-3	SWITCHBOX (B & C) (SEE FIGURE 9 FOR PARTS BREAKDOWN) UOC: YHJ, 44F.....	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 0201 CABLE ASSEMBLY, W19

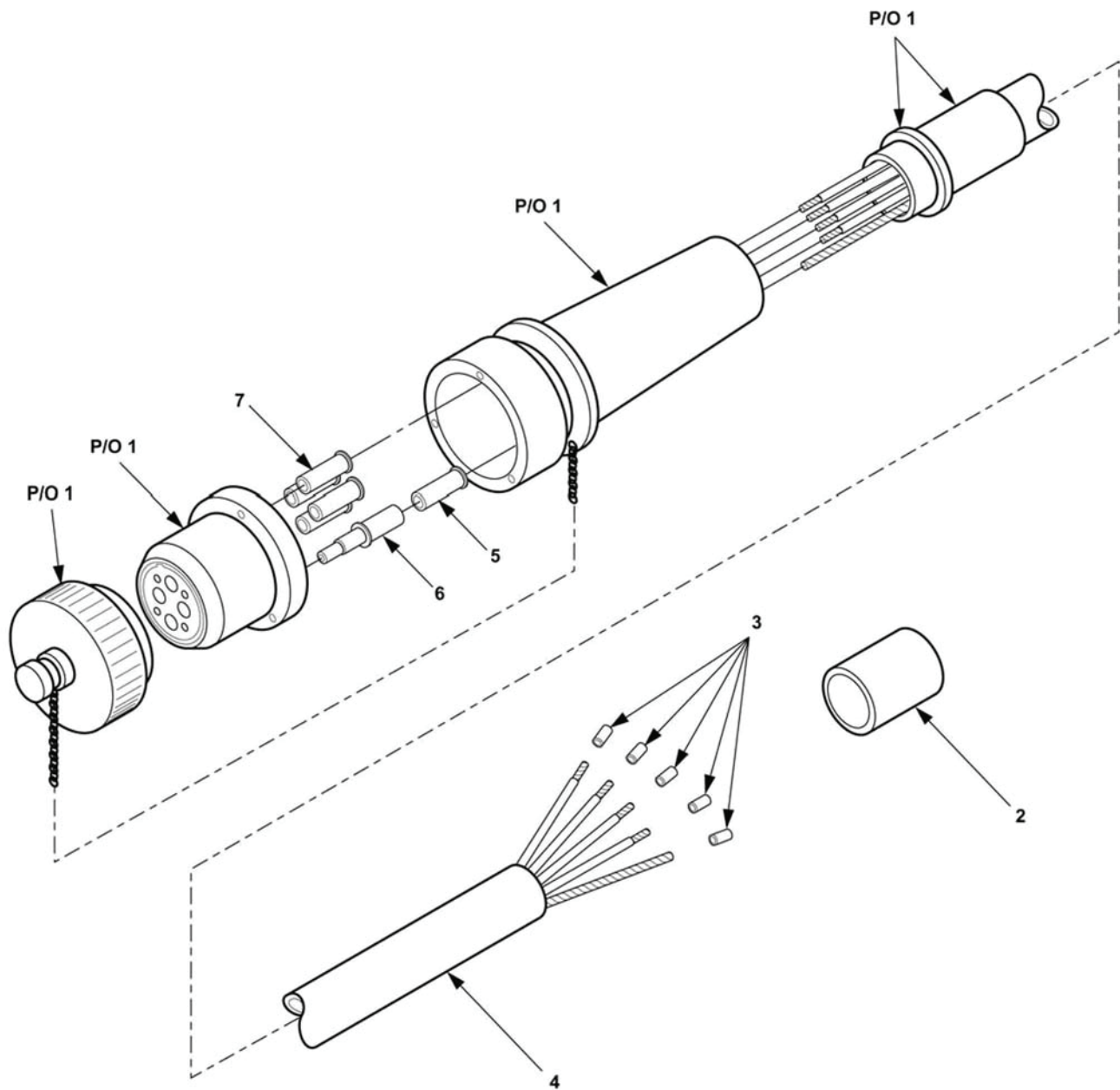


Figure 7. Cable Assembly, W19.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 0201 CABLE ASSEMBLY, W19						
-	PBFFF	6145-01-440-5706	97403	13229E5741	CABLE ASSEMBLY, POWER UOC: YHJ, 44F.....	REF
1	PAFFF	5935-01-106-4513	96906	MS90557C52413S	. CONNECTOR, PLUG, ELEC (NOT SHOWN) UOC: YHJ, 44F.....	1
2	MFFZZ		19099	13229E5741-3	. INSULATION SLEEVING MAKE FROM M23053/5-113-0 (81349) 2.5 INCHES REQUIRED UOC: YHJ, 44F.....	2
3	MFFZZ		19099	13229E5741-4	. INSULATION SLEEVING MAKE FROM M23053/5-110-9 (81349) 1 INCH REQUIRED UOC: YHJ, 44F.....	5
4	MFFZZ		19099	13229E5741-2	. CABLE, POWER, ELECTRICAL MAKE FROM 022756 (71102) 325 INCHES REQUIRED UOC: YHJ, 44F.....	1
5	PAFZZ	5999-01-167-0838	96906	MS3348-6-8L	. CONTACT, ELECTRICAL UOC: YHJ, 44F.....	1
6	PAFZZ	5999-00-346-8787	81343	M39029/49-332	. CONTACT, ELECTRICAL UOC: YHJ, 44F.....	1
7	PAFZZ	5999-00-344-1909	81349	M39029/49-335	. CONTACT, ELECTRICAL UOC: YHJ, 44F.....	4
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 0202 SWITCH BOX ASSEMBLY

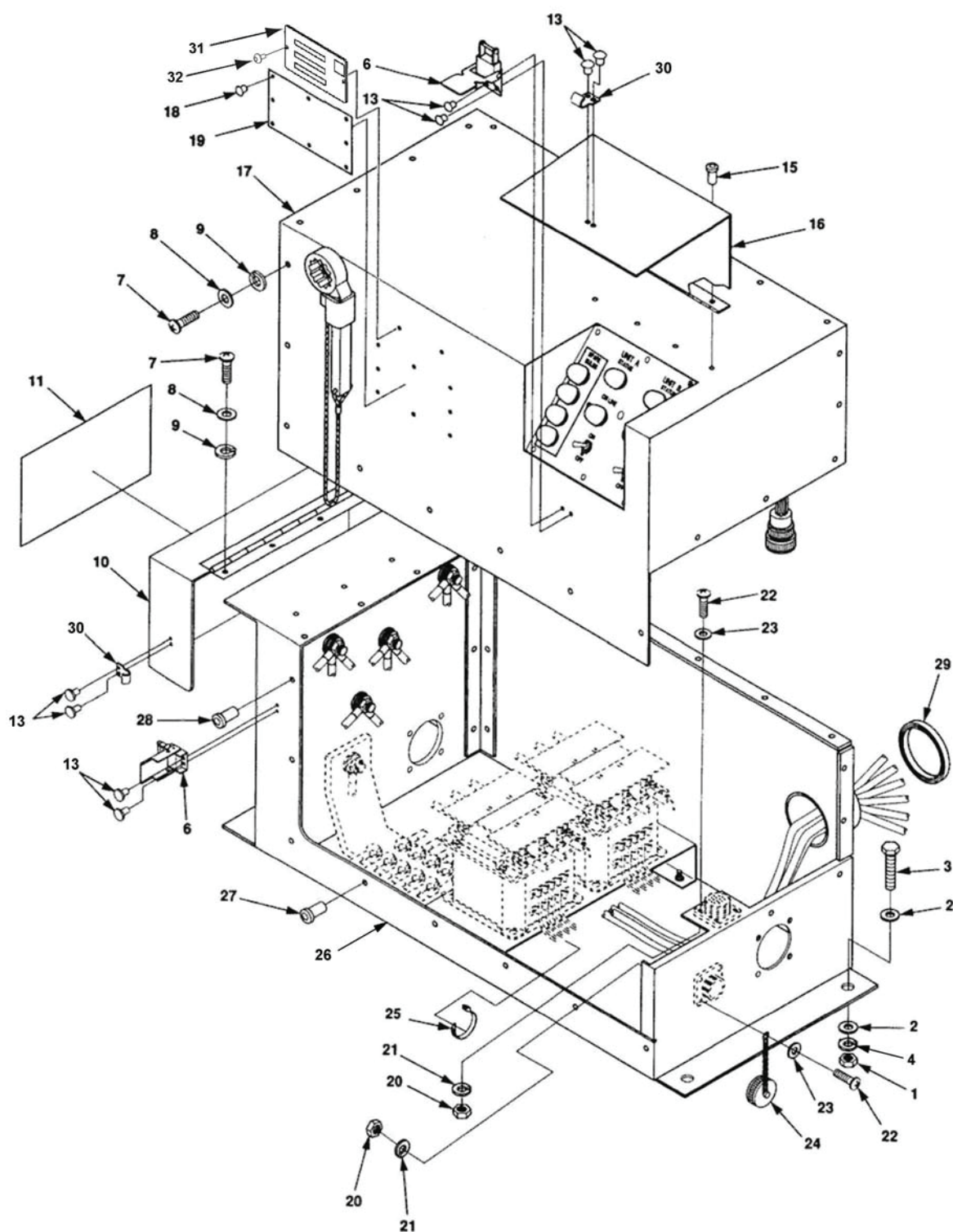


Figure 8. Switch Box Assembly (A Model).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 0202 SWITCH BOX ASSEMBLY						
FIG. 8 SWITCH BOX ASSEMBLY (A MODEL)						
1	PAFZZ	5310-00-087-4652	81349	M45913/1-6CG5C	NUT, SELF LOCKING, HEXAGON UOC: YHJ	4
2	PAFZZ		30554	88-20033-314A	WASHER, FLAT UOC: YHJ	8
3	PAFZZ	5305-00-688-2111	80204	B1821BH038C138N	SCREW, CAP, HEXAGON H UOC: YHJ	4
4	PAFZZ	5310-01-478-5703	97403	13230E6744-46	WASHER, LOCK-SPRING, HEL UOC: YHJ	4
5	XDFFF		97403	13229E5795-3	SWITCH BOX ASSEMBLY (NOT SHOWN) UOC: YHJ	REF
6	PAFZZ	5340-00-821-0304	18876	10015363	. CATCH, CLAMPING UOC: YHJ	2
7	PAFZZ	5305-00-054-6671	96906	MS51957-46	. SCREW, MACHINE UOC: YHJ	25
8	PAFZZ	5310-00-880-5978	80205	MS15795-807	. WASHER, FLAT UOC: YHJ	25
9	PAFZZ	5310-00-933-8119	80205	MS35338-137	. WASHER, LOCK UOC: YHJ	25
10	XDFFF		97403	13229E5804	. DOOR, LOAD TERMINAL UOC: YHJ	1
11	MDFZZ		97403	13229E5728-2	. MARKER, WARNING UOC: YHJ	1
12	XDFFF		97403	13229E5801	. COVER ASSY, SWITCH B (NOT SHOWN) UOC: YHJ	1
13	PAFZZ	5320-00-582-3305	80205	MS20600AD4W3	. . RIVET, BLIND UOC: YHJ	8
14				NOT USED		-
15	PAFZZ	5320-00-005-6279	80205	MS20470AD4-4-5	. . RIVET, SOLID UOC: YHJ	4
16	XDFZZ		97403	13229E5835	. . ENCLOSURE, TOP, SWITCH UOC: YHJ	1
17	XAFZZ		97403	13229E5834	. . COVER, SWITCH BOX UOC: YHJ	1
18	PAFZZ	5320-00-582-3304	80205	MS20600AD4W2	. . RIVET, BLIND UOC: YHJ	8
19	MDFZZ		97403	13229E5792-3	. . PLATE, IDENTIFICATION, SCHEMATIC UOC: YHJ	1
20	PAFZZ	5310-00-934-9748	80205	MS35649-244	. NUT, PLAIN, HEXAGON UOC: YHJ	8
21	PAFZZ	5310-00-933-8118	80205	MS35338-135	. WASHER, LOCK UOC: YHJ	8
22	PAFZZ	5305-00-054-5652	96906	MS51957-18	. SCREW, MACHINE UOC: YHJ	8

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
23	PAFZZ	5310-01-141-6672	88044	AN960C4	. WASHER, FLAT UOC: YHJ	8
24	PAFZZ	5935-01-175-8419	96906	MS25043-18DA	. COVER, ELECTRICAL CO UOC: YHJ	1
25	PAFZZ	5975-00-074-2072	81343	MS3367-1-9	. STRAP, TIEDOWN, ELECT UOC: YHJ	1
26	XDFFF		97403	13229E5796-3	. HOUSING, SWITCH BOX (NOT SHOWN) UOC: YHJ	1
27	XDFZZ		96906	MS27130-A96	. . NUT, PLAIN, BLIND, RIV UOC: YHJ	6
28	PAFZZ	5310-01-164-4694	80205	NAS1330A18-106A	. . NUT, PLAIN, BLIND, RIV UOC: YHJ	19
29	MFFZZ		19099	13229E5796-1-15	. . GROMMET, PLASTIC EDGE MAKE FROM P/N MS21266-2N (96906) AS REQUIRED UOC: YHJ	1
30	PAFZZ	5340-01-295-4896	94222	K3-0334-07	. . KEEPER UOC: YHJ	2
31	MDZZF		97403	13230E7022-56	. . PLATE, IDENTIFICATION UOC: YHJ	1
32	MDZZF		97403	13230E6383-4-3	. . RIVET, BLIND, UNIVERSAL UOC: YHJ	2

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

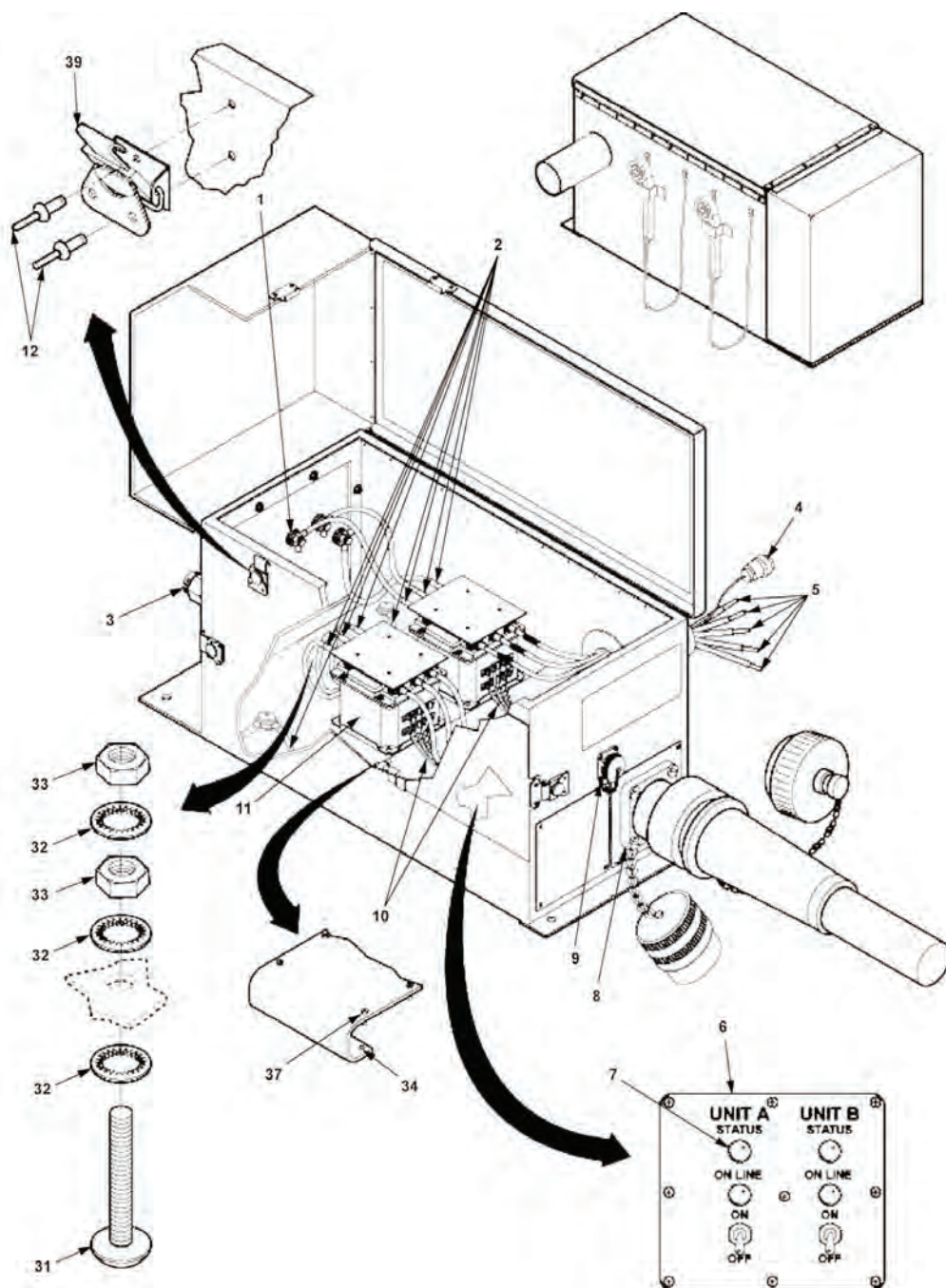
60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT
GROUP 0202 SWITCH BOX ASSEMBLY

Figure 9. Switch Box Assembly (B & C Models) (Sheet 1 of 2).

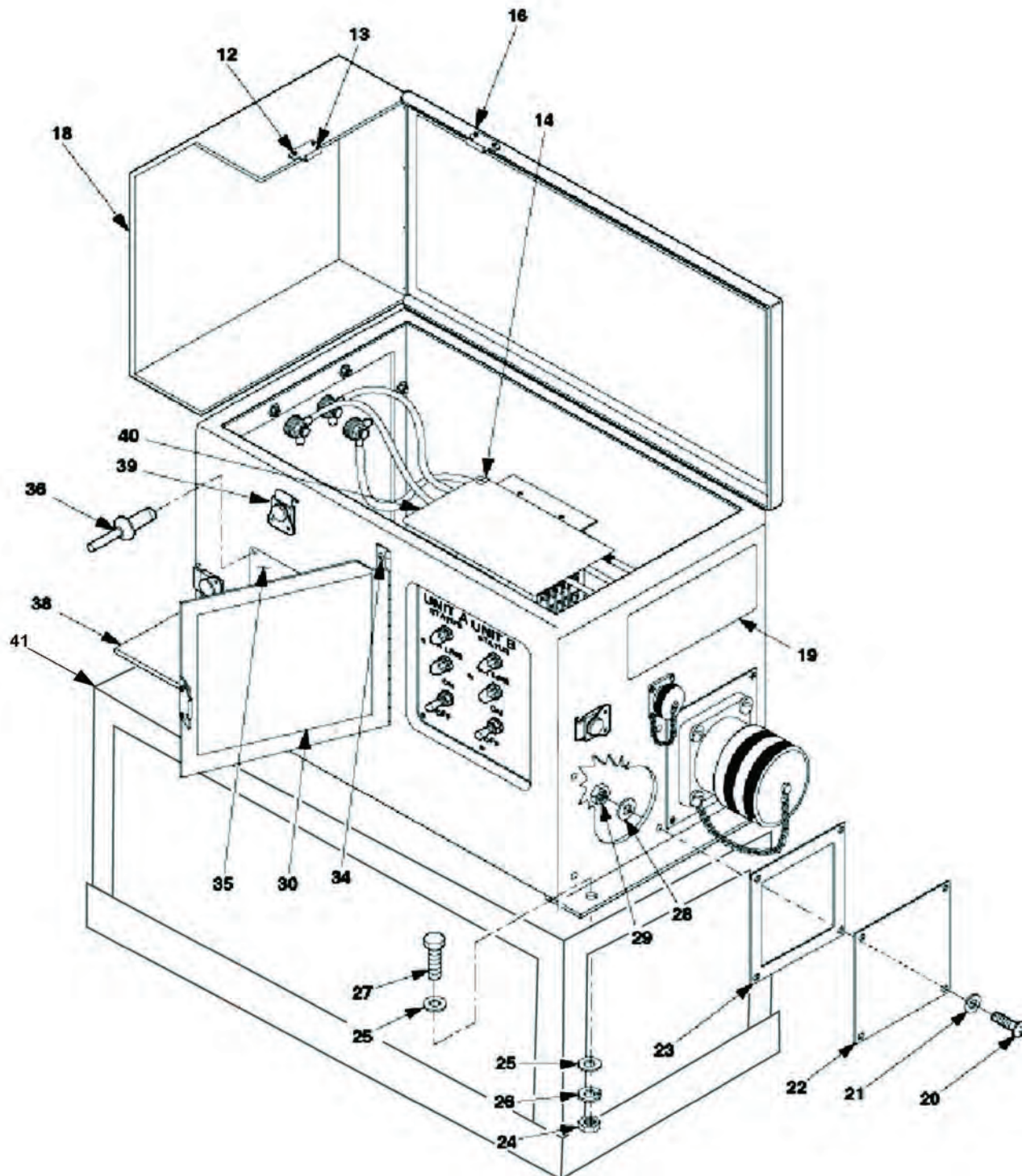


Figure 9. Switch Box Assembly (B & C Models) (Sheet 2 of 2).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 0202 SWITCH BOX ASSEMBLY						
1	PAFZZ	5940-00-237-2704	96906	MS39347-6	LOAD TERMINAL ASSY (SEE FIGURE 18 FOR PARTS BREAK-DOWN) UOC: YHJ, 44F.....	REF
2	MFFFF		97403	13229E5810	. LEADS, ELECTRICAL (SEE UOC: YHJ, 44F.....	REF
3	PAFZZ	5940-00-237-2703	96906	MS39347-5	LOAD TERMINAL ASSY (SEE FIGURE 18 FOR PARTS BREAK-DOWN) UOC: YHJ, 44F.....	REF
4	MFFFF		97403	13229E5806-2	. WIRING HARNESS, W18 (SEE FIGURE 30 FOR PARTS BREAK-DOWN) UOC: YHJ, 44F.....	REF
5	MFFFF		97403	13229E5811	. LEADS, POWER (SEE FIGURE 29 FOR PARTS BREAKDOWN) UOC: YHJ, 44F.....	REF
6	XBFFF		97403	13229E5802-2	. CONTROL PANEL ASSY. (SEE FIGURE 13 FOR PARTS BREAK-DOWN) UOC: YHJ, 44F.....	1
7	PAFZZ	6210-00-900-9423	97403	13214E1391	. LIGHT, INDICATOR, WATER-TIGHT (SEE FIGURE 16 FOR PARTS BREAKDOWN) UOC: YHJ, 44F.....	4
8	MFFFF		97403	13229E5809-4	. WIRING HARNESS, W10 (SEE FIGURE 21 FOR PARTS BREAK-DOWN) UOC: YHJ, 44F.....	1
9	MFFFF		97403	13229E5806-1	. WIRING HARNESS, W17 (SEE FIGURE 22 FOR PARTS BREAK-DOWN) UOC: YHJ, 44F.....	1
10	MFFFF		97403	13229E5800-2	. WIRING HARNESS, W7 (SEE FIGURE 24 FOR PARTS BREAK-DOWN) UOC: YHJ, 44F.....	1
11	PAFZZ	6110-01-388-0318	01XD4	CT350E-120E4	. CONTACTOR (SEE FIGURE 28 FOR PARTS BREAKDOWN) UOC: YHJ, 44F.....	2
12	PAFZZ	5320-00-954-9568	80205	MS20604AD4W3	. RIVET, BLIND UOC: YHJ, 44F.....	21
13	PAFZZ	5340-01-295-4896	94222	K3-0334-07	. KEEPER UOC: YHJ, 44F.....	3
14	PAFZZ	5975-00-074-2072	81343	MS3367-1-9	. STRAP, TIEDOWN, ELECT UOC: YHJ, 44F.....	1
15	XBFFF		97403	13229E5801	. COVER ASSY, SWITCH BOX (NOT SHOWN) UOC: YHJ, 44F.....	1

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
16	XBFZZ		97403	13229E5834	. . COVER, SWITCH BOX UOC: YHJ, 44F.....	1
17	PAFZZ	5320-00-117-7288	80205	MS20426AD6-8	. . RIVET, SOLID (NOT SHOWN) UOC: YHJ, 44F.....	4
18	XBFZZ		97403	13229E5804	. . DOOR, LOAD TERMINAL UOC: YHJ, 44F.....	1
19	XBFZZ		97403	13229E5793-1	. LABEL, INSTRUCTION UOC: YHJ, 44F.....	1
20	PAFZZ	5305-00-071-1318	96906	MS51957-83	. SCREW, MACHINE UOC: YHJ, 44F.....	4
21	PAFZZ	5310-01-304-8733	80205	MS15795-852	. WASHER, FLAT UOC: YHJ, 44F.....	4
22	XBFZZ		97403	13230E6529	. PLATE, BLANKING UOC: YHJ, 44F.....	1
23	MFFZZ		97403	13229E5815	. GASKET, CONNECTOR, PL UOC: YHJ, 44F.....	1
24	PAFZZ	5310-00-087-4652	81349	MS5913/1-6CG5C	. NUT, SELF-LOCKING, HEX UOC: YHJ, 44F.....	4
25	PAFZZ	5310-01-385-7083	96906	MS51412-27	. WASHER, FLAT UOC: YHJ, 44F.....	4
26	PAFZZ	5310-00-637-9541	81718	H2525M	. WASHER, LOCK UOC: YHJ, 44F.....	4
27	PAFZZ	5305-00-688-2111	80204	B1821BH038C138N	. SCREW, CAP, HEXAGON UOC: YHJ, 44F.....	4
28	PAFZZ	5310-00-933-8121	88907	C13-26992	. WASHER, LOCK UOC: YHJ, 44F.....	4
29	PAFZZ	5310-00-400-5503	80205	MS35650-3254	. . NUT, PLAIN, HEXAGON UOC: YHJ, 44F.....	4
30	XBFZZ		97403	13229E5793-2	. LABEL INSTRUCTION UOC: YHJ, 44F.....	1
31	PAFZZ	5305-00-954-9550	80205	MS35214-101	. SCREW, MACHINE UOC: YHJ, 44F.....	2
32	PAFZZ	5310-00-042-4229	80205	MS35333-113	. WASHER, LOCK UOC: YHJ, 44F.....	6
33	PAFZZ	5310-00-584-7995	96906	MS16203-27	. NUT, PLAIN, HEXAGON UOC: YHJ, 44F.....	4
34	PAFZZ	5320-00-956-7355	07707	AD64H	. RIVET, BLIND UOC: YHJ, 44F.....	11
35	XBFZZ		97403	13230E6823-3	. PLATE, IDENTIFICATION UOC: YHJ, 44F.....	1
36	PAFZZ	5320-00-991-7484	80205	MS20604AD3W2	. RIVET, BLIND UOC: YHJ, 44F.....	4
37	PAFZZ	5310-01-219-3472	80205	MS27130-CR26	. NUT, PLAIN, BLIND, RIV UOC: YHJ, 44F.....	8
38	XBFZZ		97403	13229E5796	. HOUSING, SWITCH BOX UOC: YHJ, 44F.....	1
39	PAFZZ	5340-00-821-0204	18876	10015363	. CATCH, CLAMPING UOC: YHJ, 44F.....	3
40	XBFZZ		97403	13229E5792-3	. PLATE, SCHEMATIC DIA UOC: YHJ, 44F.....	1

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020201 LOAD TERMINAL WRENCH ASSEMBLY

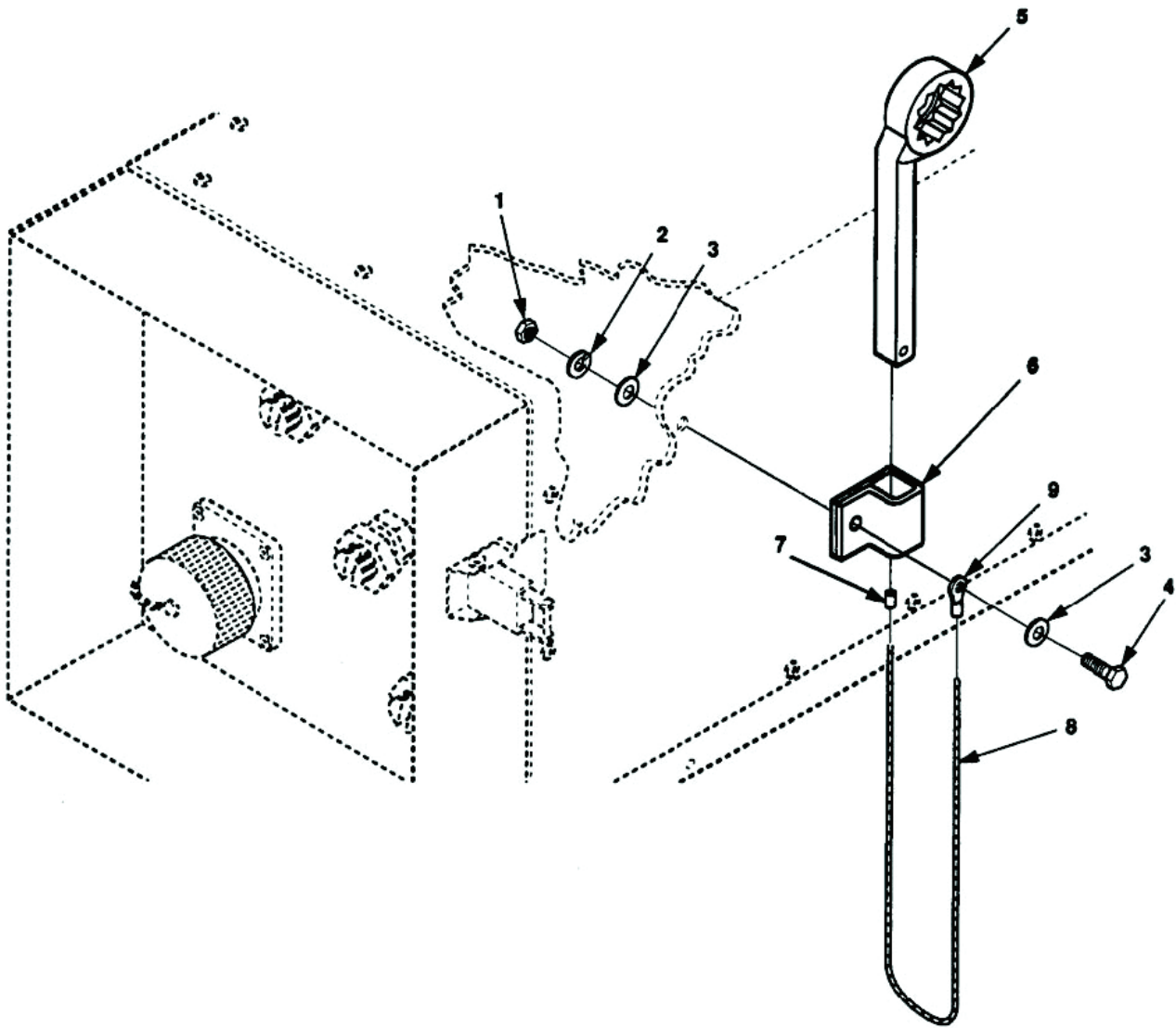


Figure 10. Load Terminal Wrench Assembly (A Model).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020201 LOAD TERMINAL WRENCH ASSEMBLY						
FIG. 10 LOAD TERMINAL WRENCH ASSEMBLY (A MODEL)						
1	PAFZZ	5310-00-400-5503	80205	MS35650-3254	NUT, PLAIN, HEXAGON UOC: YHJ	1
2	PAFZZ	5310-00-933-8121	88907	C13-26992	WASHER, LOCK UOC: YHJ	1
3	PAFZZ	5310-01-304-8733	80205	MS15795-852	. WASHER, FLAT UOC: YHJ	2
4	PAFZZ	5305-00-685-3511	80205	MS35308-306	. SCREW, CAP, HEXAGON UOC: YHJ	1
5	PAFZZ	5120-01-368-1646	30554	88-21148	. WRENCH, BOX UOC: YHJ	1
6	PAFZZ	5340-01-277-5068	30554	72-2135	. CLAMP, LOOP UOC: YHJ	1
7	PAFZZ	5940-00-853-3987	14726	P1401	. SPLICE, CONDUCTOR UOC: YHJ	1
8	MFFZZ		19099	13229E5795-3-65	ROPE, FIBROUS MAKE FROM P/N C1832 (88001) 40 INCHES REQUIRED UOC: YHJ	1
9	PAFZZ	5940-00-115-2678	96906	MS20659-111	TERMINAL, LUG UOC: YHJ	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020201 LOAD TERMINAL WRENCH ASSEMBLY

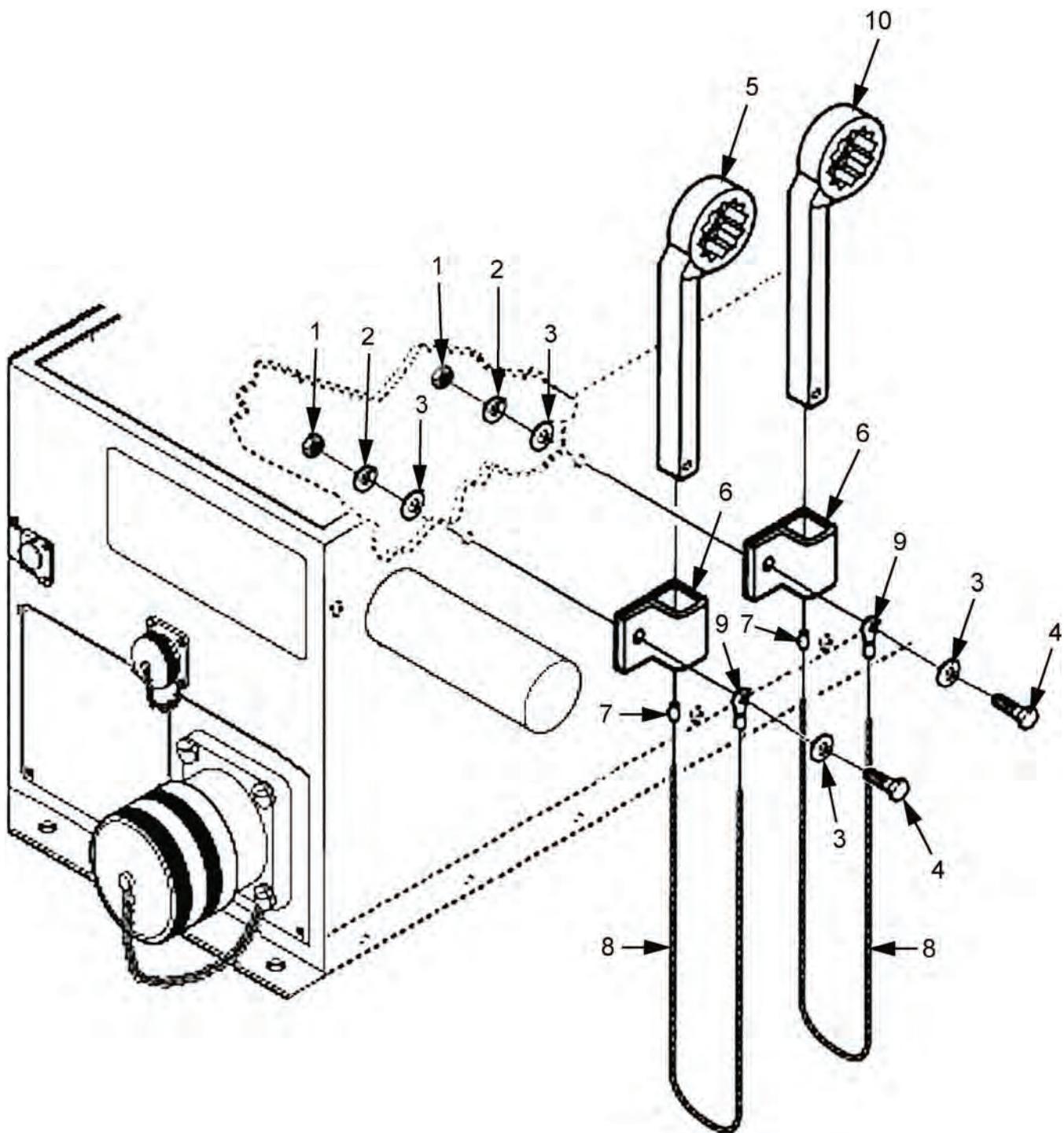


Figure 11. Load Terminal Wrench Assembly (B & C Models).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020201 LOAD TERMINAL WRENCH ASSEMBLY						
FIG. 11 LOAD TERMINAL WRENCH ASSEMBLY (B & C MODELS)						
1	PAFZZ	5310-00-400-5503	80205	MS35650-3254	NUT, PLAIN, HEXAGON UOC: YHJ, 44F.....	2
2	PAFZZ	5310-00-933-8121	88907	C13-26992	WASHER, LOCK UOC: YHJ, 44F.....	2
3	PAFZZ	5310-01-304-8733	80205	MS15795-852	WASHER, FLAT UOC: YHJ, 44F.....	4
4	PAFZZ	5305-00-685-3511	80205	MS35308-306	SCREW, CAP, HEXAGON UOC: YHJ, 44F.....	2
5	PAFZZ	5120-01-368-1646	30554	88-21148	WRENCH, BOX UOC: YHJ, 44F.....	1
6	PAFZZ	5340-01-277-5068	30554	72-2135	CLAMP, LOOP UOC: YHJ, 44F.....	2
7	PAFZZ	5940-00-853-3987	14726	P1401	SPLICE, CONDUCTOR UOC: YHJ, 44F.....	2
8	MFFZZ		19099	13229E5795-3-65	ROPE, FIBROUS MAKE FROM P/N C1832 (88001) 40 INCHES REQUIRED UOC: YHJ, 44F.....	2
9	PAFZZ	5940-00-115-2678	96906	MS20659-111	TERMINAL, LUG UOC: YHJ, 44F.....	2
10	PAFZZ	5120-00-138-3790	12670	CLE-403002	WRENCH, BOX UOC: YHJ, 44F.....	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020202 CONTROL PANEL ASSEMBLY

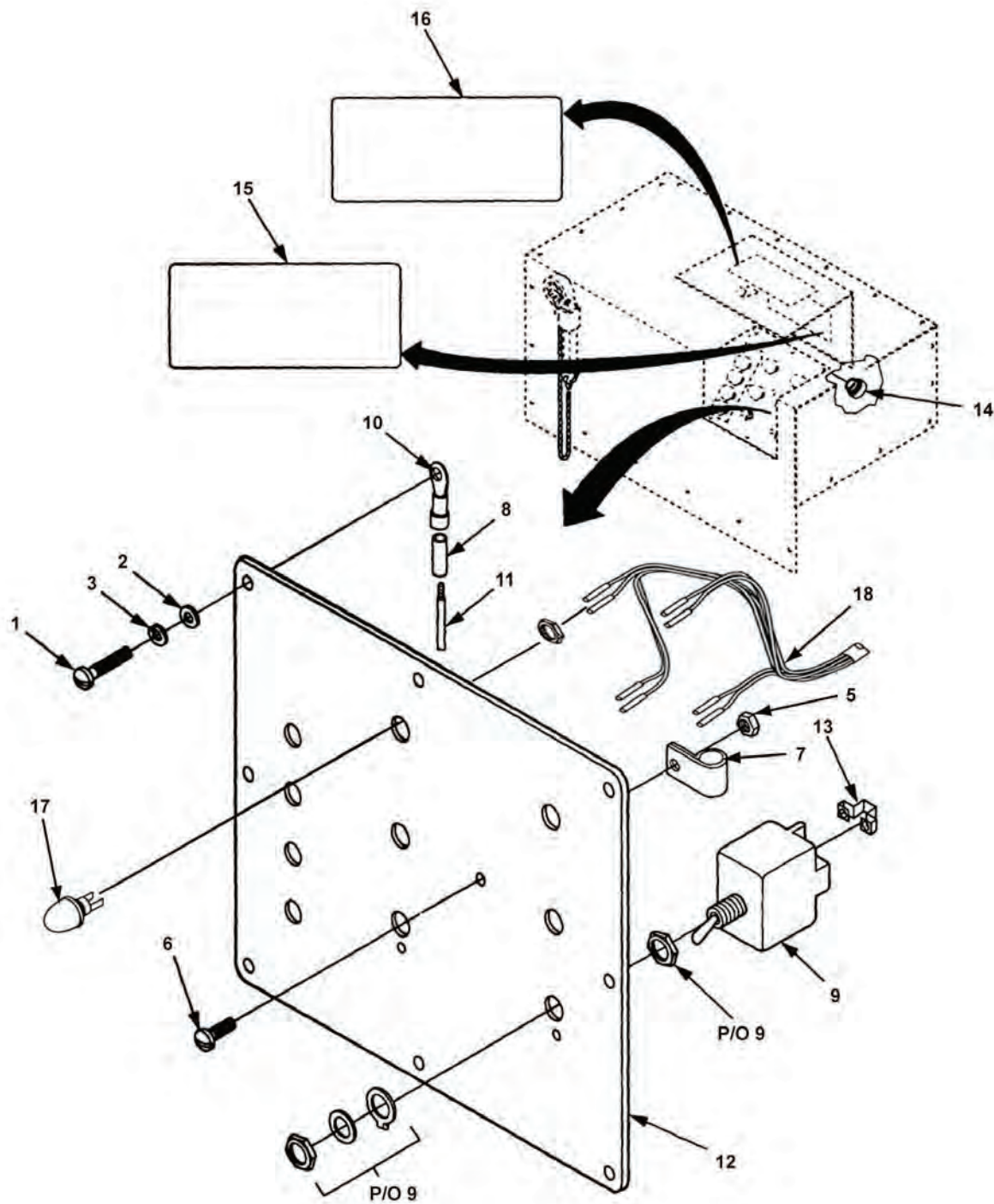


Figure 12. Control Panel Assembly (A Model).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020202 CONTROL PANEL ASSEMBLY						
FIG. 12 CONTROL PANEL ASSEMBLY (A MODEL)						
1	PAFZZ	5305-00-054-6670	96906	MS51957-45	SCREW, MACHINE UOC: YHJ	8
2	PAFZZ	5310-00-880-5978	80205	MS15795-807	WASHER, FLAT UOC: YHJ	8
3	PAFZZ	5310-00-933-8119	80205	MS35338-137	WASHER, LOCK UOC: YHJ	8
4	XDFFF		97403	13229E5802-2	CONTROL PANEL ASSEM (NOT SHOWN) UOC: YHJ	1
5	PAFZZ	5310-00-982-6814	80205	MS21044C08	. NUT, SELF-LOCKING, HE UOC: YHJ	1
6	PAFZZ	5305-00-088-9671	96906	MS24693-C52	. SCREW, MACHINE UOC: YHJ	1
7	PAFZZ	5340-00-078-3615	80205	MS21322-33	. CLAMP, LOOP UOC: YHJ	1
8	MFFZZ		19099	13229E5802-2-4	. INSULATION, SLEEVING MAKE FROM P/N M23053/5-107-9 (81349), .75 INCH REQUIRED UOC: YHJ	16
9	PAFZZ	5930-00-105-5331	96906	MS27407-3	. SWITCH, TOGGLE UOC: YHJ	2
10	PAFZZ	5940-00-143-4774	81343	MS25036-153	. TERMINAL, LUG UOC: YHJ	1
11	MFFZZ		19099	13229E5802-2-10	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-16-9 (81349), 16AWG AS REQUIRED UOC: YHJ	1
12	XDFZZ		97403	13229E5805	. PANEL, CONTROL UOC: YHJ	1
13	PAFZZ	6150-01-261-9826	58536	AA59125/28-TBJA	. BUS, CONDUCTOR UOC: YHJ	2
14	PAFZZ	5310-00-570-0386	81349	M45938/1-13C	. NUT, PLAIN, CLINCH UOC: YHJ	8
15	MDFZZ		97403	13229E5793-1	. LABEL, INSTRUCTION, OPERAT- ING PROCEDURES UOC: YHJ	1
16	MDFZZ		97403	13229E5793-2	LABEL, INSTRUCTION, LOAD TRANSFER PROCEDURES UOC: YHJ	1
17	PAFFF	6210-00-900-9423	97403	13214E1391	LIGHT, INDICATOR (SEE UOC: YHJ	8
18	XDFFF		97403	13229E5837	HARNESS ASSY, W20 (SEE UOC: YHJ	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020202 CONTROL PANEL ASSEMBLY

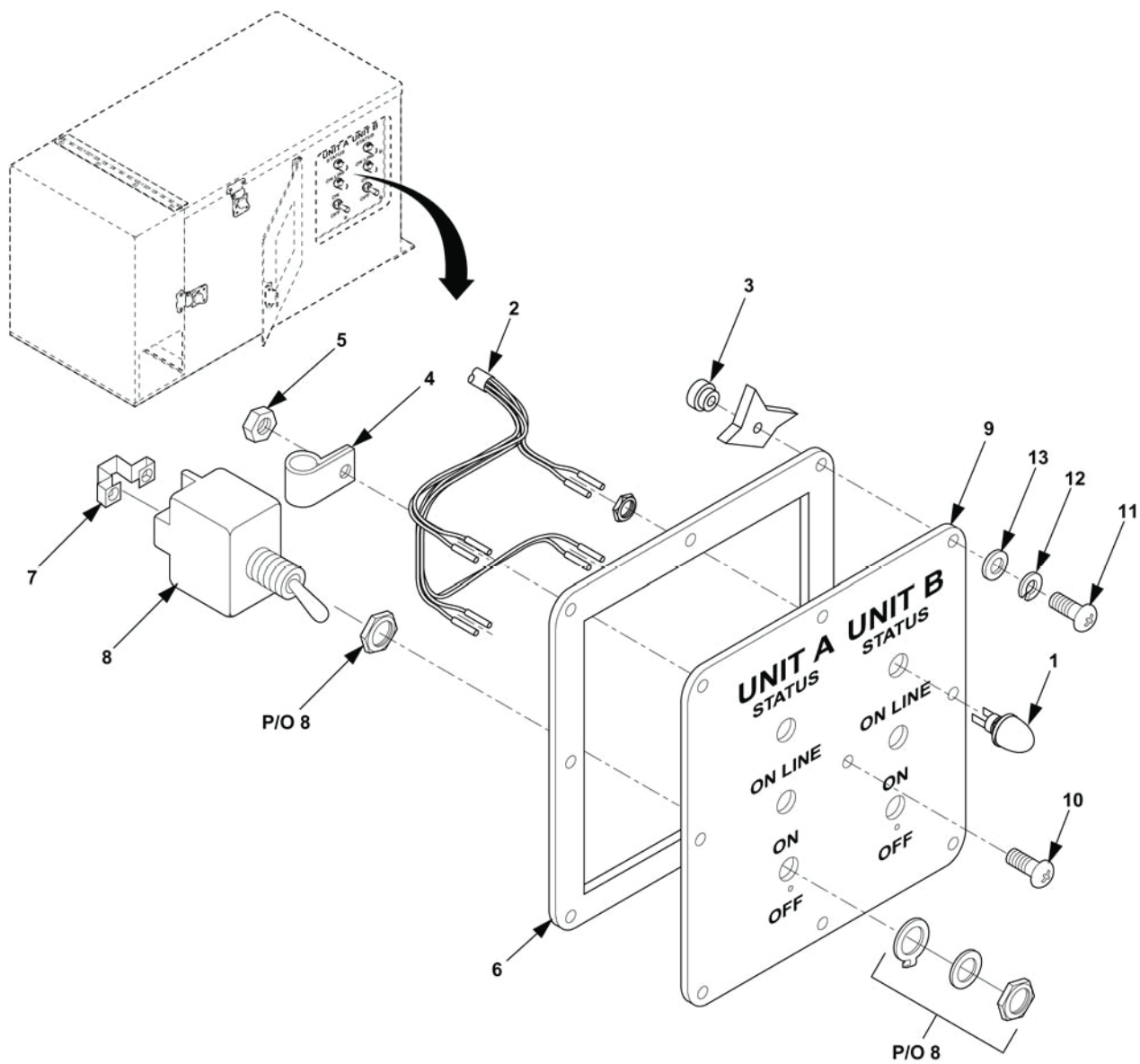


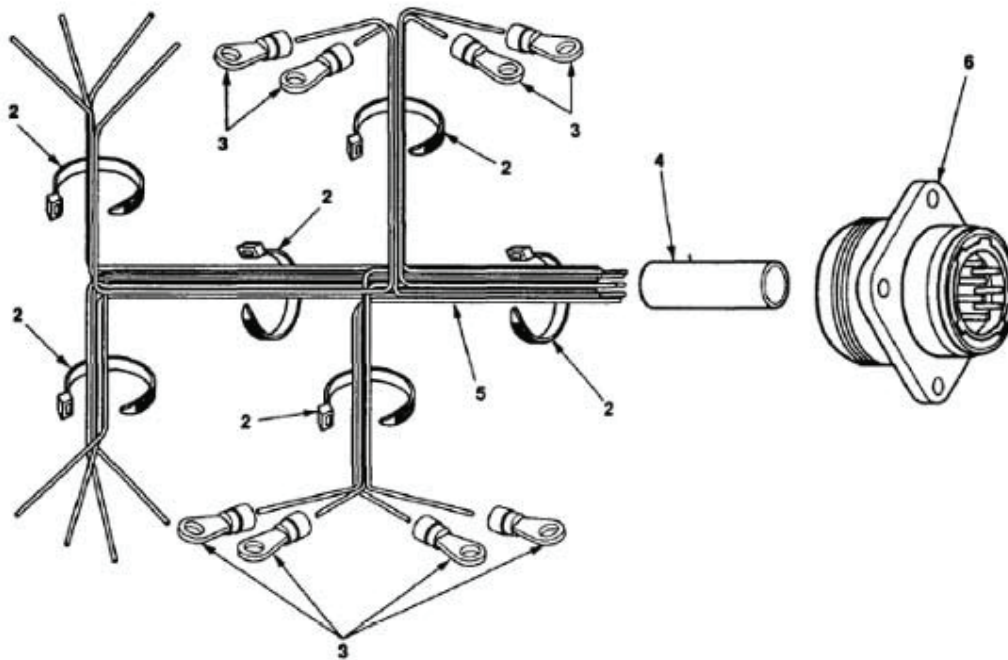
Figure 13. Control Panel Assembly (B & C Models).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020202 CONTROL PANEL ASSEMBLY						
1	PAFFF	6210-00-900-9423	97403	13214E1391	LIGHT, INDICATOR (SEE FIGURE 16 FOR PARTS BREAKDOWN) UOC: YHJ, 44F.....	4
2	MFFFF		97403	13229E5800-2	HARNESS ASSY, W7 (SEE FIG- URE 24 FOR PARTS BREAK- DOWN) UOC: YHJ, 44F.....	REF
3				NOT USED		-
4	PAFZZ	5340-00-078-3615	96906	MS21322-33	CLAMP, LOOP UOC: YHJ, 44F.....	1
5	PAFZZ	5310-00-982-6814	80205	MS21044C08	NUT, SELF-LOCKING, HE UOC: YHJ, 44F.....	1
6	MFFZZ		97403	13230E6516	GASKET, CONTROL PANEL UOC: YHJ, 44F.....	1
7	PAFZZ	6150-01-261-9826	58536	AA59125/28-TBJA	BUS, CONDUCTOR UOC: YHJ, 44F.....	2
8	PAFZZ	5930-00-105-5331	96906	MS27407-3	SWITCH, TOGGLE UOC: YHJ, 44F.....	2
9	XBFZZ		97403	13229E5805	PANEL, CONTROL UOC: YHJ, 44F.....	1
10	PAFZZ	5305-00-088-9671	96906	MS24693-C52	SCREW, MACHINE UOC: YHJ, 44F.....	1
11	PAFZZ	5305-00-054-6671	96906	MS51957-46	SCREW, MACHINE UOC: YHJ, 44F.....	8
12	PAFZZ	5310-00-933-8119	80205	MS35338-137	WASHER, LOCK UOC: YHJ, 44F.....	8
13	PAFZZ	5310-00-880-5978	80205	MS15795-807	WASHER, FLAT UOC: YHJ, 44F.....	8
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 02020201 HARNESS ASSEMBLY, W20



Wire List Group 02020201 Harness Assembly, W20 (A Model)

Wire No.	Termination		Termination		Wire No.
	From	Item No.	To	Item No.	
1	XDS1-1	-	P3-A	6	5
2	XDS1-2	-	P3-B	6	5
3	XDS3-2	-	P3-C	6	5
4	S1-3	3	P3-D	6	5
5	S1-5	3	P3-F	6	5
6	S1-6	3	P3-G	6	5
7	S2-6	3	P3-H	6	5
8	S2-5	3	P3-I	6	5
9	S2-3	3	P3-K	6	5
10	XDS4-2	-	P3-L	6	5
11	XDS2-1	-	P3-M	6	5
12	XDS2-2	-	P3-N	6	5
13	XDS3-1	-	S1-3	3	5
14	XDS4-1	-	S2-3	3	5

Figure 14. Harness Assembly, W20 (A Model).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02020201 HARNESS ASSEMBLY, W20						
FIG. 14 HARNESS ASSEMBLY, W20 (A MODEL)						
1	XDFFF		97403	13229E5837	HARNESS ASSY, W20 UOC: YHJ	REF
2	PAFZZ	5975-00-074-2072	81343	MS3367-1-9	. STRAP, TIEDOWN, ELEC (NOT SHOWN) UOC: YHJ	AR
3	PAFZZ	5940-00-813-0698	81343	MS25036-101	. TERMINAL, LUG UOC: YHJ	8
4	MOFZZ		19099	13229E5837-3	. INSULATION, SLEEVING MAKE FROM P/N M23053/5-107-9 (81349) 2.5 INCHES REQUIRED UOC: YHJ	1
5	MFFZZ		19099	13229E5837-2	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-20-9 (81349) AS REQUIRED UOC: YHJ	1
6	PAFZZ	5935-00-506-6540	96906	MS3456W20-27P	. CONNECTOR, PLUG, ELEC UOC: YHJ	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 02020202 LIGHT, INDICATOR

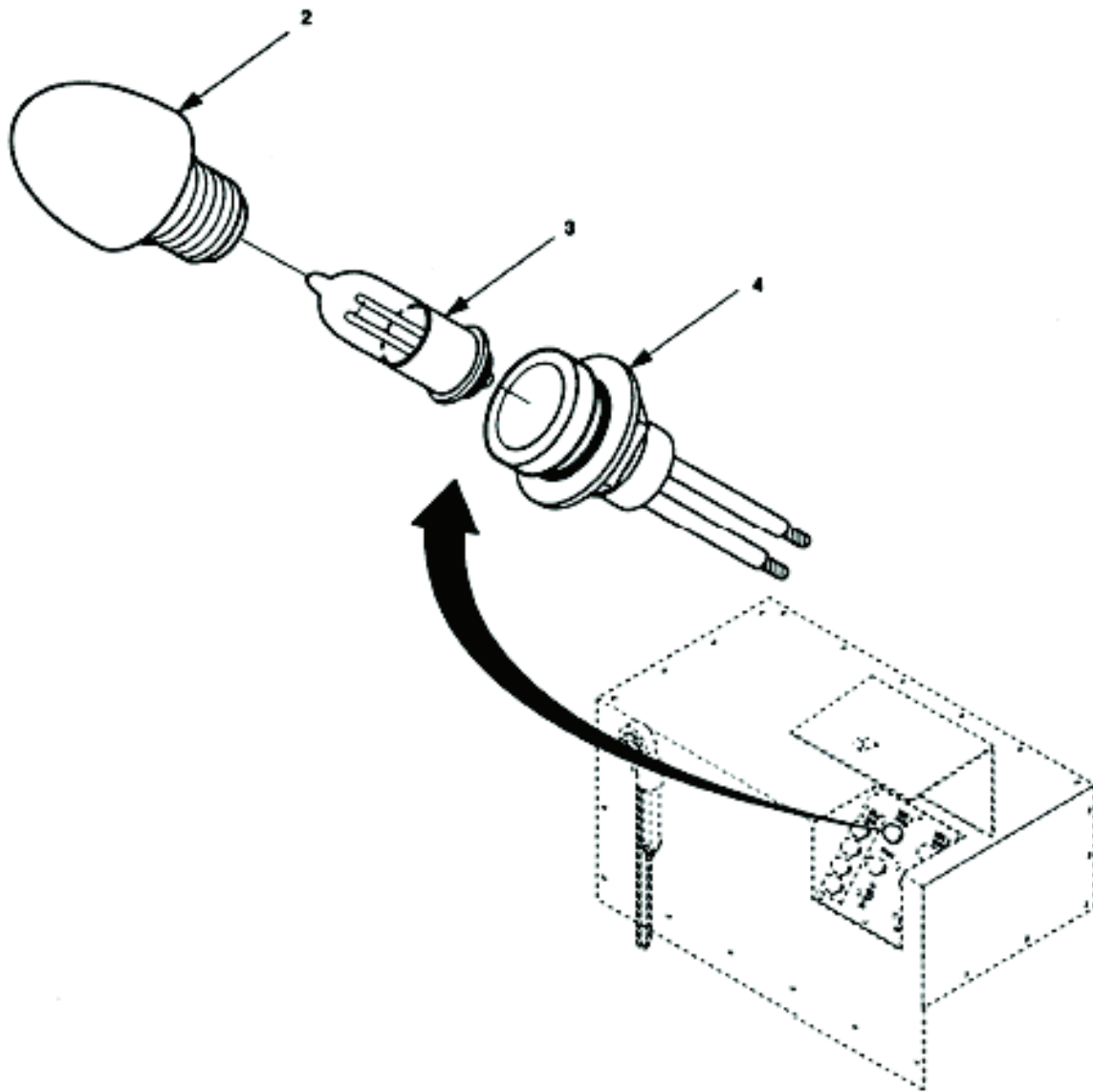


Figure 15. Light, Indicator (A Model).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 02020202 LIGHT, INDICATOR	
					FIG. 15 LIGHT, INDICATOR (A MODEL)	
1	PAFZZ	6210-00-900-9423	97403	13214E1391	LIGHT, INDICATOR (NOT SHOWN) UOC: YHJ	REF
2	PAFZZ	6210-01-338-1108	83330	181-0931-003	. LENS, CLEAR LIGHT UOC: YHJ	1
3	PAFZZ	6240-01-232-8753	58224	77A102527P001	. LAMP, GLOW UOC: YHJ	1
4	PAFZZ	6210-01-230-1851	83330	181-8836-09-553	. LIGHT, INDICATOR UOC: YHJ	1
					END OF FIGURE	

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 02020202 LIGHT, INDICATOR

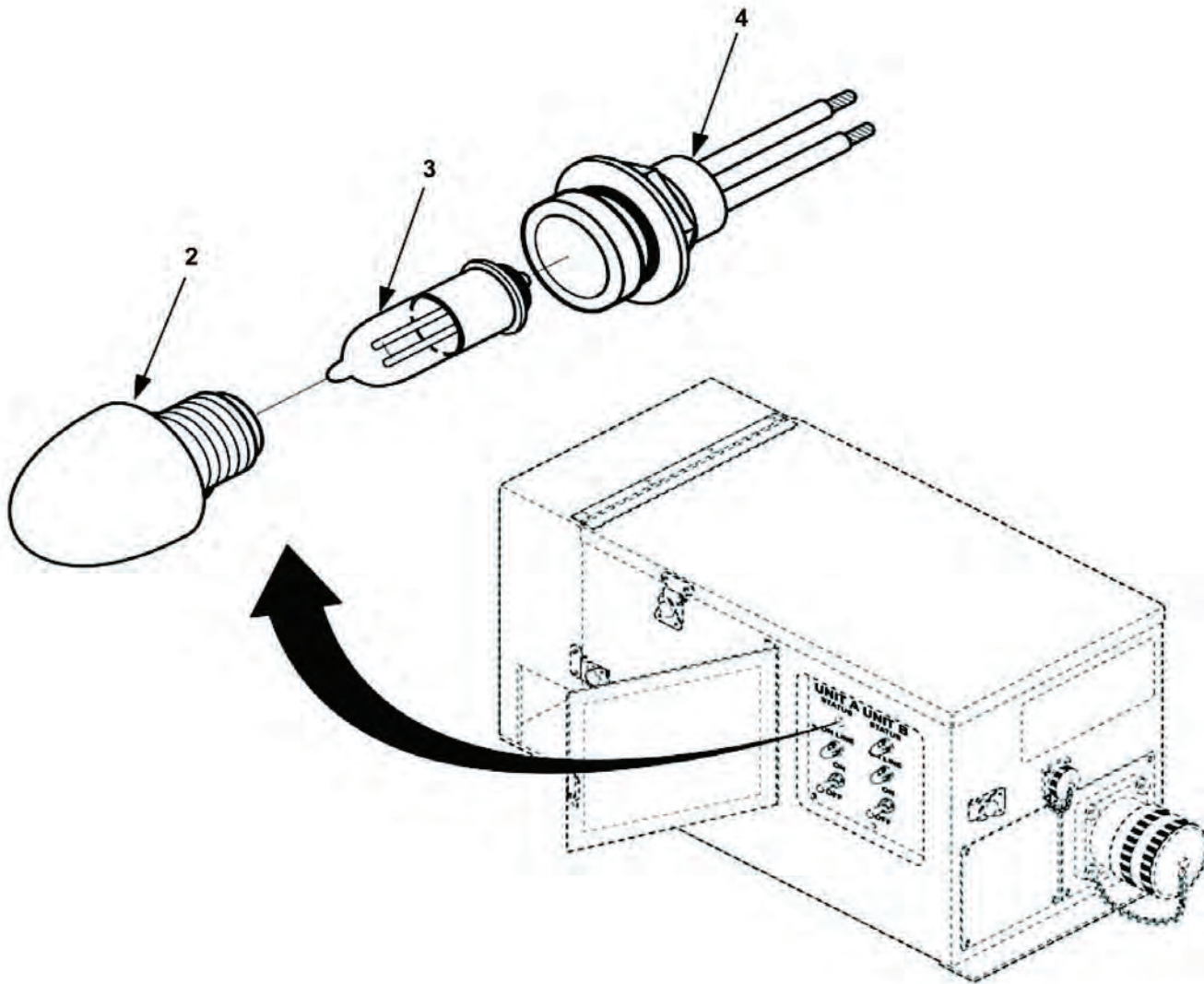


Figure 16. Light, Indicator (B & C Models).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 02020202 LIGHT, INDICATOR	
1	PAFZZ	6210-00-900-9423	97403	13214E1391	LIGHT, INDICATOR (NOT SHOWN) UOC: YHJ, 44F.....	REF
2	PAFZZ	6210-00-941-6690	83330	181-0937-003	. LENS, LIGHT UOC: YHJ, 44F.....	1
3	PAFZZ	6240-01-355-4422	08108	6S6AC130V	. LAMP, INCANDESCENT UOC: YHJ, 44F.....	1
4	PAFZZ	6210-01-230-1851	83330	181-8836-09-553	. LIGHT, INDICATOR UOC: YHJ, 44F.....	1
					END OF FIGURE	

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020203 TERMINALS, LOAD

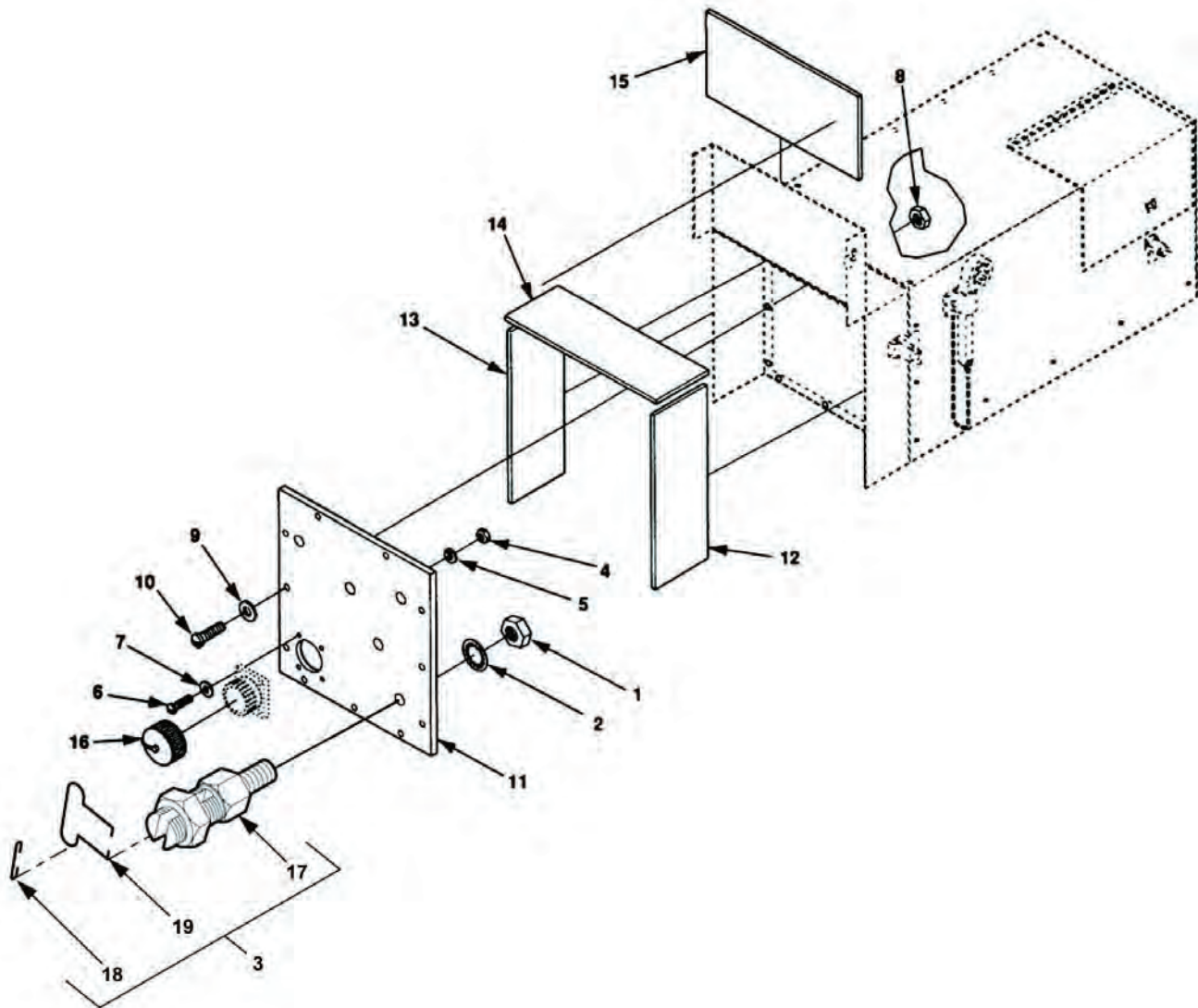


Figure 17. Terminals, Load (A Model).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020203 TERMINALS, LOAD						
1	PAFZZ	5310-00-934-9727	96906	MS35691-59	NUT, PLAIN, HEXAGON UOC: YHJ	9
2	PAFZZ	5310-00-209-3987	96906	MS35333-116	WASHER, LOCK UOC: YHJ	5
3	PAFZZ	5940-00-237-2704	96906	MS39347-6	TERMINAL, STUD (NOT SHOWN) UOC: YHJ	5
4	PAFZZ	5310-00-043-0520	96906	MS35650-3252	NUT, PLAIN, HEXAGON UOC: YHJ	4
5	PAFZZ	5310-00-933-8121	88907	C13-26992	WASHER, LOCK UOC: YHJ	4
6	PAFZZ	5305-00-993-2457	96906	MS35207-284	SCREW, MACHINE UOC: YHJ	4
7	PAFZZ	5310-01-304-8733	80205	MS15795-852	WASHER, FLAT UOC: YHJ	4
8	PAFZZ	5310-00-421-9608	96906	MS51858-4	NUT, PLAIN, HEXAGON UOC: YHJ	11
9	PAFZZ	5310-00-213-4960	96906	MS51859-4	WASHER, FLAT UOC: YHJ	11
10	PAFZZ	5305-00-143-3304	58536	A-A-55624-68	SCREW, MACHINE UOC: YHJ	11
11	XDFZZ		97403	13229E5807-3	PLATE, LOAD TERMINAL UOC: YHJ	1
12	MFFZZ		19099	13229E5795-3-67	PLASTIC, SHEET MAKE FROM P/N M24768/2- S-7 (81349) 12.50 X 2.125 INCHES REQUIRED UOC: YHJ	1
13	MFFZZ		19099	13229E5795-3-68	PLASTIC, SHEET MAKE FROM P/N M24768/2- S-7 (81349) 11.38 X 3.75 INCHES REQUIRED UOC: YHJ	1
14	MFFZZ		19099	13229E5795-3-69	PLASTIC, SHEET MAKE FROM P/N M24768/2- S-7 (81349) 3.75 X 12.50 INCHES REQUIRED UOC: YHJ	1
15	MFFZZ		19099	13229E5795-3-70	PLASTIC, SHEET MAKE FROM P/N M24768/2- S-7 (81349) 11.38 X 7.38 INCHES REQUIRED UOC: YHJ	1
16	PAFZZ	5935-00-342-3736	96906	MS90564-11C	COVER, ELECTRICAL CO UOC: YHJ	1
17	XAFZZ		96906	MS39347-6A	. BODY UOC: YHJ	5
18	MOFZZ		19099	MS39347-6B	. BAIL MAKE FROM ASTM A313 (81346), 2.00 INCHES REQUIRED UOC: YHJ	5

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
19	MOFZZ		19099	MS39347-6C	. TERMINAL CLIP MAKE FROM ASTM A313 (81346), 5.75 INCHES REQUIRED UOC: YHJ	5

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020203 TERMINALS, LOAD

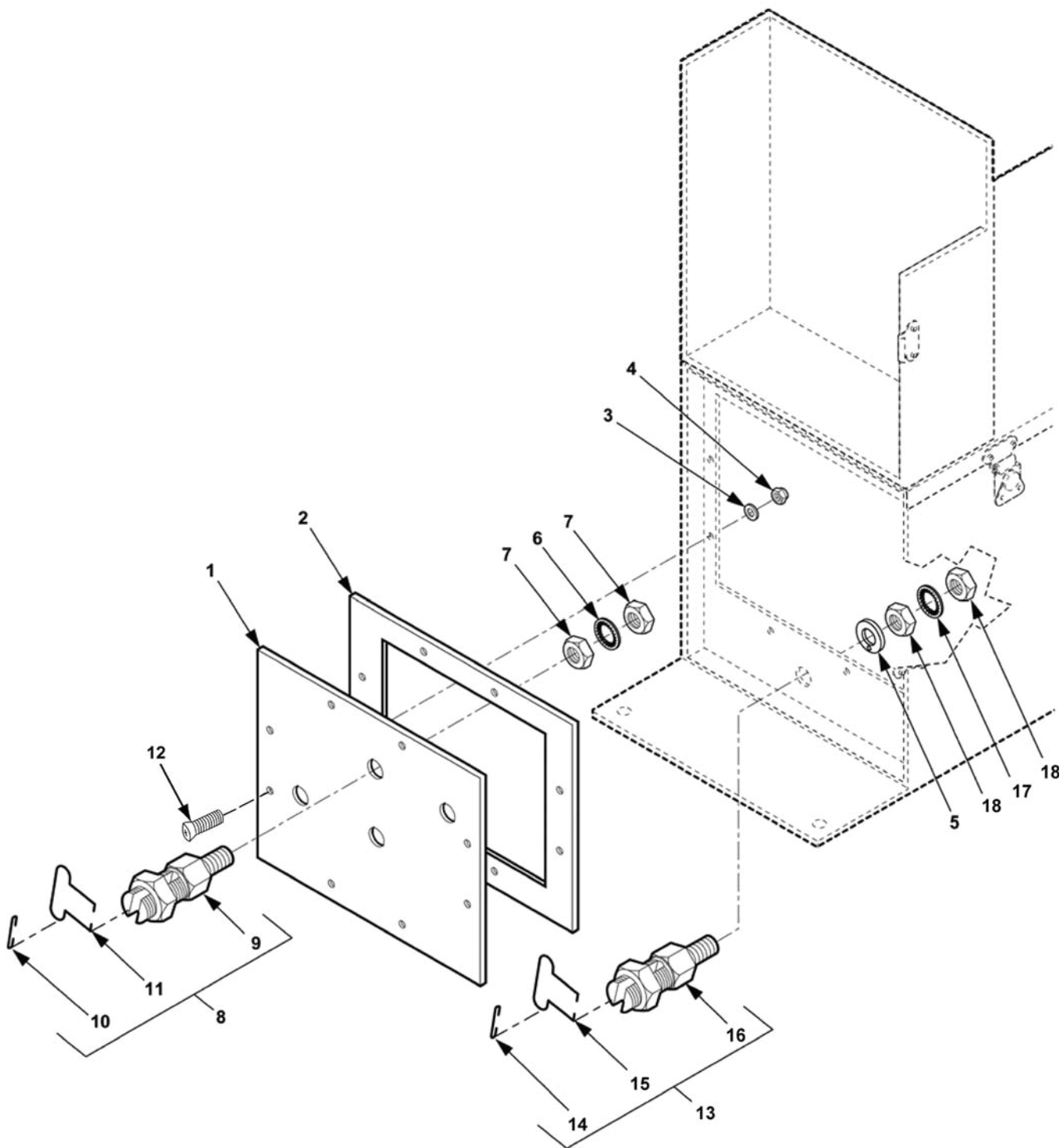


Figure 18. Terminals, Load (B & C Models).

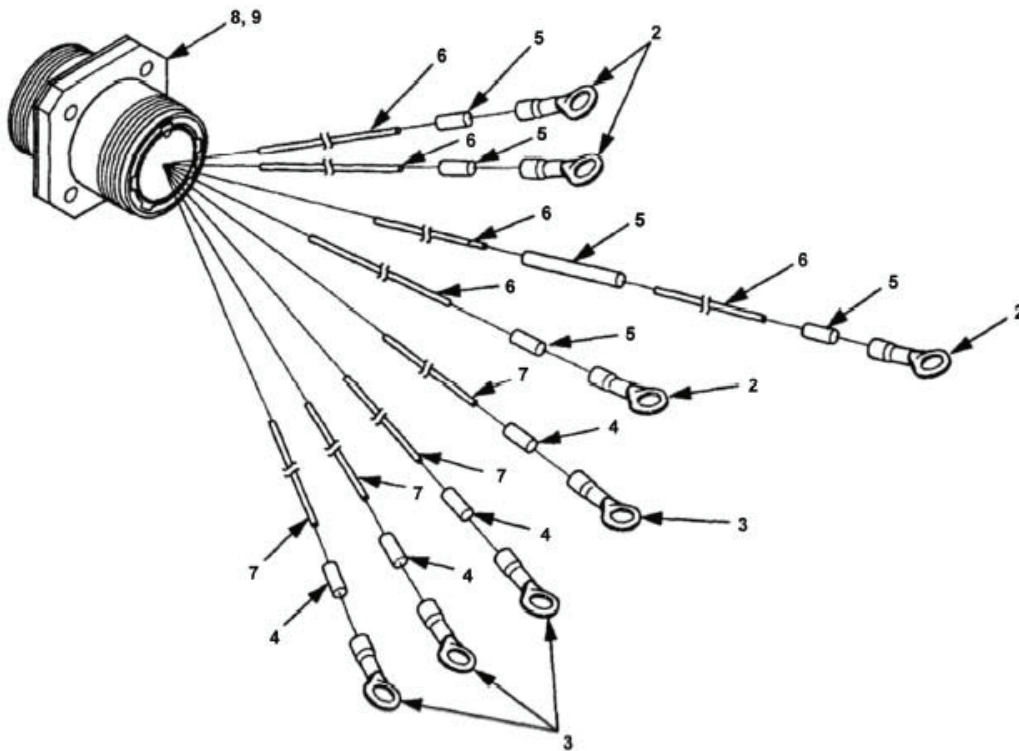
(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020203 TERMINALS, LOAD						
1	XBFZZ		97403	13229E5807-3	PLATE, LOAD TERMINAL UOC: YHJ, 44F.....	1
2	MFFZZ		97403	13230E6528	GASKET, LOAD TERMINAL UOC: YHJ, 44F.....	1
3	PAFZZ	5310-01-471-0640	30554	88-20033-11C	WASHER, FLAT UOC: YHJ, 44F.....	8
4	PAFZZ	5310-00-208-9255	80205	MS21044C3	NUT, SELF-LOCKING, HE UOC: YHJ, 44F.....	8
5	XBFZZ		97403	13230E4599-2	WASHER, LUG CONNECT UOC: YHJ, 44F.....	1
6	PAFZZ	5310-00-209-3987	96906	MS35333-116	WASHER, LOCK UOC: YHJ, 44F.....	4
7	PAFZZ	5310-00-934-9727	96906	MS35691-59	NUT, PLAIN, HEXAGON UOC: YHJ, 44F.....	8
8	PAFZZ	5940-00-237-2704	96906	MS39347-6	TERMINAL, STUD (NOT SHOWN) UOC: YHJ, 44F.....	4
9	MOFZZ		96906	MS39347-6A	. BODY UOC: YHJ, 44F.....	4
10	MOFZZ		19099	MS39347-6B	. BAIL MAKE FROM ASTM A313 (81346), 2.00 INCHES REQUIRED UOC: YHJ, 44F.....	4
11	MOFZZ		19099	MS39347-6C	. TERMINAL CLIP MAKE FROM ASTM A313 (81346), 5.75 INCHES REQUIRED UOC: YHJ, 44F.....	4
12	PAFZZ	5305-00-071-1324	96906	MS51960-67	SCREW, MACHINE UOC: YHJ, 44F.....	8
13	PAFZZ	5940-00-237-2703	96906	MS39347-5	TERMINAL, STUD (NOT SHOWN) UOC: YHJ, 44F.....	1
14	MOFZZ		96906	MS39347-5A	. BODY UOC: YHJ, 44F.....	1
15	MOFZZ		19099	MS39347-5B	. BAIL MAKE FROM ASTM A313 (81346), 2.00 INCHES REQUIRED UOC: YHJ, 44F.....	1
16	MOFZZ		19099	MS39347-5C	. TERMINAL CLIP MAKE FROM ASTM A313 (81346), 5.75 INCHES REQUIRED UOC: YHJ, 44F.....	1
17	PAFZZ	5310-00-042-4229	80205	MS35333-113	WASHER, LOCK UOC: YHJ, 44F.....	1
18	PAFZZ	5310-00-989-5945	80205	MS35691-35	NUT, PLAIN, HEXAGON UOC: YHJ, 44F.....	2

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020204 LEADS/ HARNESSSES, W9



Wire No.	Termination		Termination		Wire No.
	From	Item No.	To	Item No.	
1	J1-A	8, 9	L1	2	6
2	J1-B	8, 9	L2	2	6
3	J1-C	8, 9	L3	2	6
4	J1-N	8, 9	L0	2	6
5	J1-G1	9	GND	3	7
6	J1-G2	9	GND	3	7
7	J1-G3	9	GND	3	7
8	J1-G4	9	GND	3	7

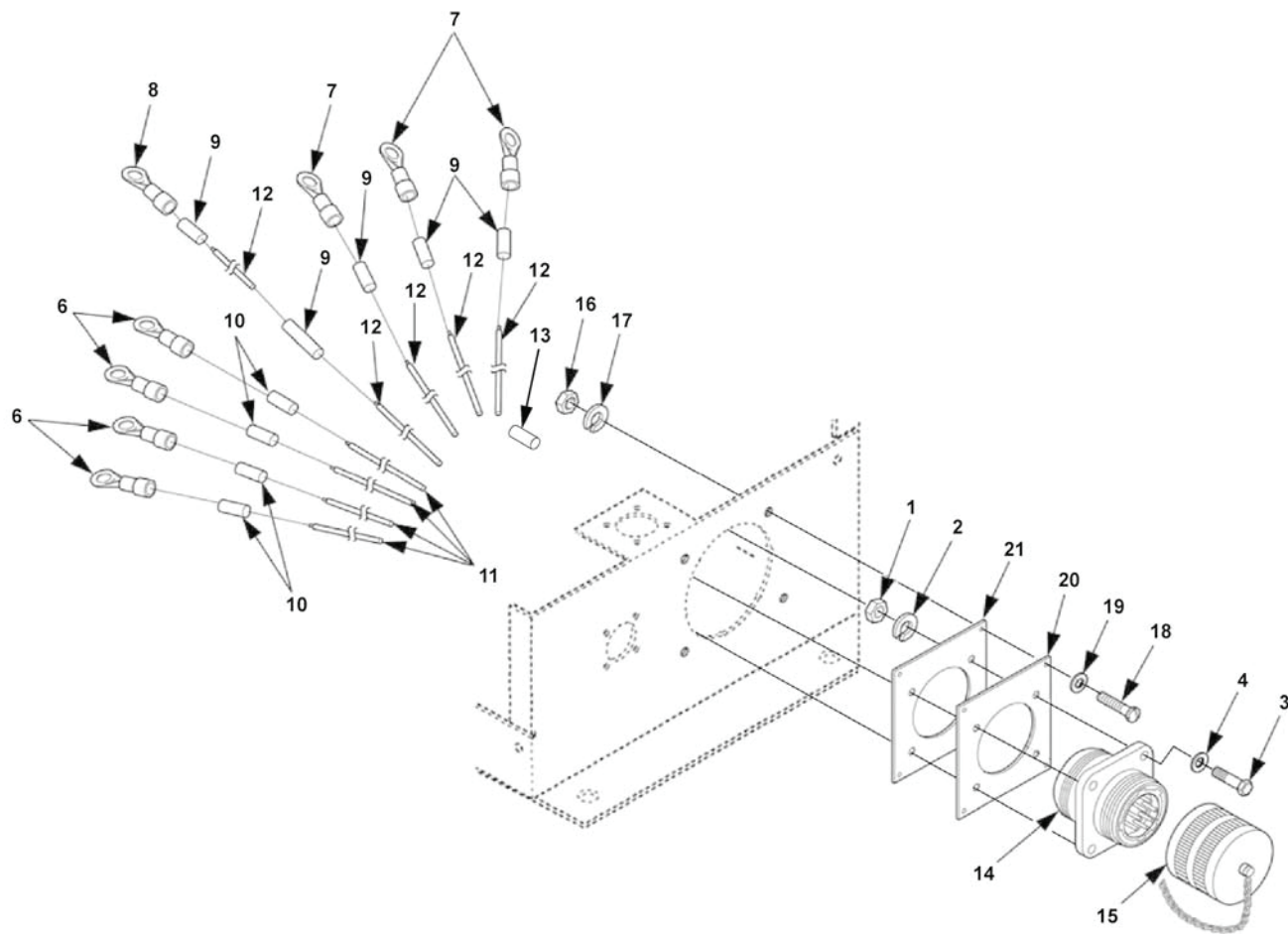
Figure 19. Wiring Harness, W9 (A Model).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020204 LEADS/HARNESSES, W9 FIG. 19 WIRING HARNESS, W9 (A MODEL).						
1	XDFFF		97403	13229E5809-3	WIRING HARNESS, W9 UOC: YHJ	1
2	PAFZZ	5940-00-025-1821	98410	0190670115	. TERMINAL, LUG (NOT SHOWN) UOC: YHJ	4
3	PAFZZ	5940-00-557-4341	81343	MS25036-123	. TERMINAL, LUG UOC: YHJ	4
4	MFFZZ		19099	13229E5809-3-18	. INSULATION SLEEVING MAKE FROM P/N M23053/5-108-4 (81349) 2.5 INCHES REQUIRED UOC: YHJ	4
5	MFFZZ		19099	13229E5809-3-17	. INSULATION SLEEVING MAKE FROM P/N M23053/5-110-4 (81349) 2.5 INCHES REQUIRED UOC: YHJ	5
6	MFFZZ		19099	13229E5809-3-8	. WIRE, ELECTRICAL MAKE FROM P/N M5086/2-02-9 (81349) AS REQUIRED UOC: YHJ	4
7	MFFZZ		19099	13229E5809-3-5	. WIRE, ELECTRICAL MAKE FROM P/N M5086/2-4-9 (81349) AS REQUIRED UOC: YHJ	4
8	PAFZZ	5999-01-217-4144	81343	MS3348-4/0-2/0L	. CONTACT, ELECTRICAL UOC: YHJ	4
9	PAFZZ	5935-01-101-3418	96906	MS90555C52413S	. CONNECTOR, RECEPTACLE UOC: YHJ	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020205 LEADS/HARNESSES, W10



Wire No.	Termination		Termination		Wire No.
	From	Item No.	To	Item No.	
1	J2-A	13, 14	K2-A1	7	12
2	J2-B	13, 14	K2-B1	7	12
3	J2-C	13, 14	K2-C1	7	12
4	J2-N	13, 14	L0	8	12
5	J2-G1	14	BUS BAR	6	11
6	J2-G2	14	BUS BAR	6	11
7	J2-G3	14	BUS BAR	6	11
8	J2-G4	14	BUS BAR	6	11

Figure 20. Wiring Harness, W10 (A Model).

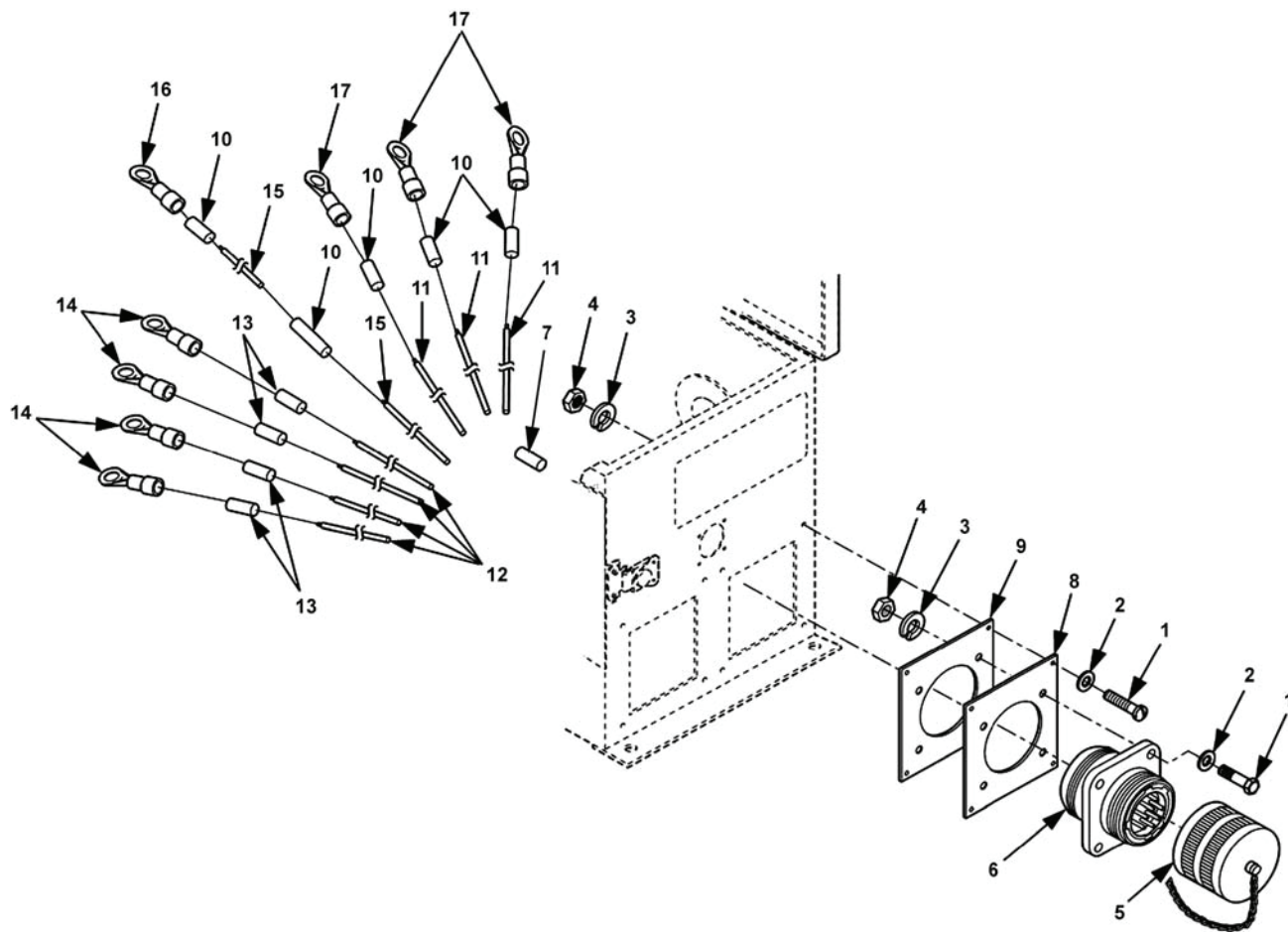
(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020205 LEADS/HARNESSES, W10 FIG. 20 WIRING HARNESS, W10 (A MODEL).						
1	PAFZZ	5310-00-043-0520	96906	MS35650-3252	NUT, PLAIN, HEXAGON UOC: YHJ	4
2	PAFZZ	5310-01-228-0597	96906	MS51415-5	WASHER, LOCK UOC: YHJ	4
3	PAFZZ	5305-00-993-2457	96906	MS35207-284	SCREW, MACHINE UOC: YHJ	4
4	PAFZZ	5310-01-103-6042	96906	MS51412-4	WASHER, FLAT UOC: YHJ	4
5				NOT USED		-
6	PAFZZ	5940-00-557-4341	81343	MS25036-123	TERMINAL, LUG UOC: YHJ	4
7	PAFZZ	5940-00-113-9835	81343	MS25036-136	TERMINAL, LUG UOC: YHJ	3
8	PAFZZ	5940-00-025-1821	98410	0190670115	TERMINAL, LUG UOC: YHJ	1
9	MFFZZ		19099	M23053/5-110-4	INSULATION SLEEVING MAKE FROM P/N M23053/5-110-4 (81349) 2.5 INCHES REQUIRED UOC: YHJ	5
10	MFFZZ		19099	M23053/5-108-4	INSULATION SLEEVING MAKE FROM P/N M23053/5-108-4 (81349) 2.5 INCHES REQUIRED UOC: YHJ	4
11	MFFZZ		19099	M5086/2-4-9	WIRE, ELECTRICAL MAKE FROM P/N M5086/2-4-9 (81349) AS REQUIRED UOC: YHJ	4
12	MFFZZ		19099	M5086/2-02-9	WIRE, ELECTRICAL MAKE FROM P/N M5086/2-02-9 (81349) AS REQUIRED UOC: YHJ	4
13	PAFZZ	5999-01-217-4144	81343	AS3341-4/0-2/0L	CONTACT, ELECTRICAL UOC: YHJ	4
14	PAFZZ	5935-01-087-0780	96906	MS90558C52413P	CONNECTOR, RECEPTACLE UOC: YHJ	1
15	PAFZZ	5935-01-172-1004	96906	MS90563-7C	COVER, ELECTRICAL CO UOC: YHJ	1
16	PAFZZ	5310-00-400-5503	80205	MS356550-3254	NUT, PLAIN, HEXAGON UOC: YHJ	4
17	PAFZZ	5310-00-933-8121	88907	C13-26992	WASHER, LOCK UOC: YHJ	4
18	PAFZZ	5305-00-685-3511	80205	MS35308-306	SCREW, CAP, HEXAGON UOC: YHJ	4
19	PAFZZ	5310-01-304-8733	80205	MS15795-852	WASHER, FLAT UOC: YHJ	4

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
20	XBFZZ		97403	13229E5788-3	PLATE, CONNECTOR, MOUNT UOC: YHJ	1
21	XBFZZ		97403	13229E5815	GASKET, CONNECTOR, PL UOC: YHJ	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020205 LEADS/HARNESSES, W10



Wire No.	Termination		Termination		Wire No.
	From	Item No.	To	Item No.	
1	J2-A	6, 7	K2-A1	17	11
2	J2-B	6, 7	K2-B1	17	11
3	J2-C	6, 7	K2-C1	17	11
4	J2-N	6, 7	N	16	15
5	J2-G1	6	GND2	14	12
6	J2-G2	6	GND2	14	12
7	J2-G3	6	GND2	14	12
8	J2-G4	6	GND2	14	12

Figure 21. Wiring Harness, W10 (B & C Models).

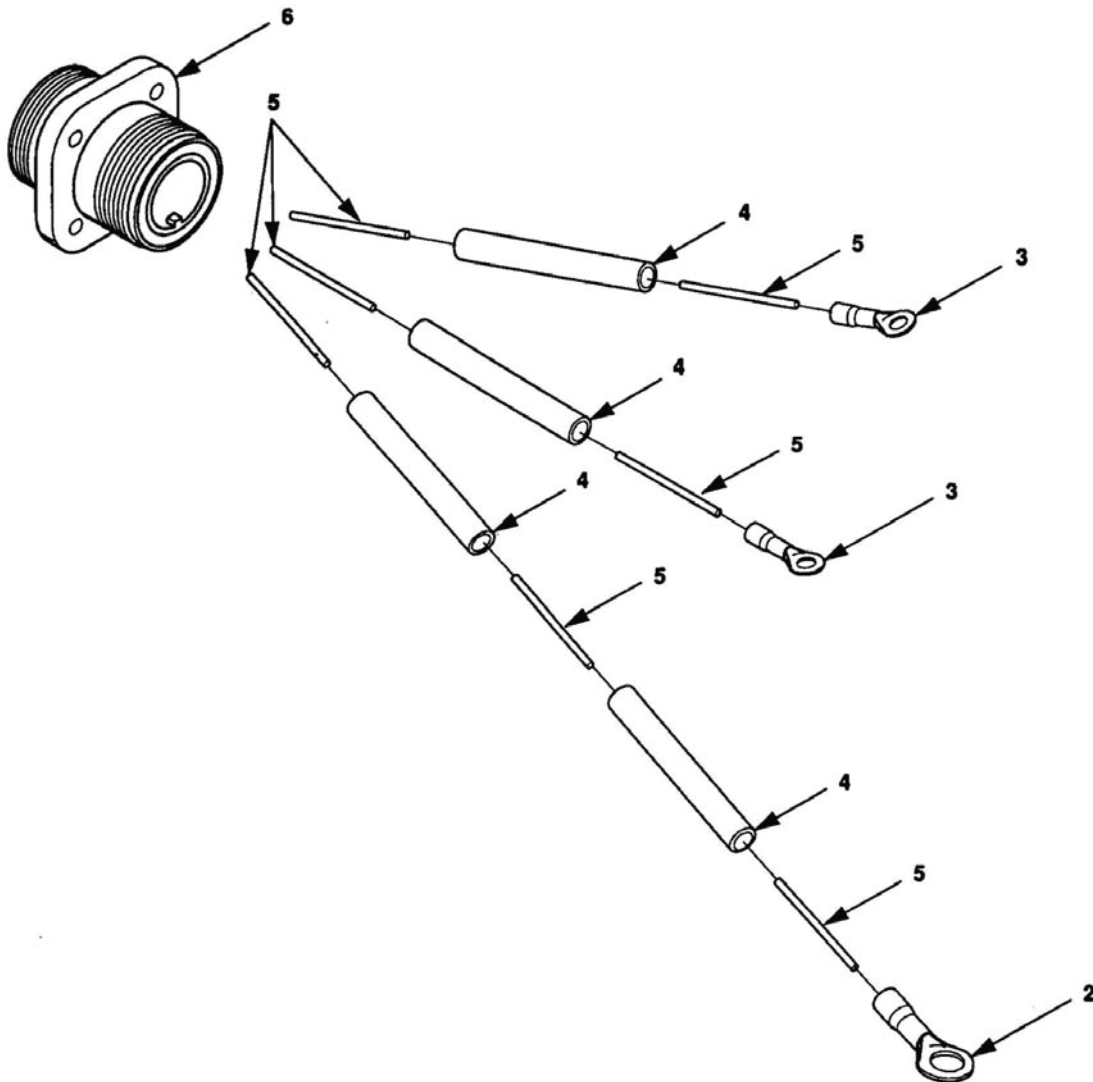
(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020205						
LEADS/HARNESSES, W10						
1	PAFZZ	5305-00-071-1318	96906	MS51957-83	SCREW, MACHINE UOC: YHJ, 44F.....	8
2	PAFZZ	5310-01-304-8733	80205	MS15795-852	WASHER, FLAT UOC: YHJ, 44F.....	8
3	PAFZZ	5310-00-933-8121	88907	C13-26992	WASHER, LOCK UOC: YHJ, 44F.....	8
4	PAFZZ	5310-00-400-5503	80205	MS35650-3254	NUT, PLAIN, HEXAGON UOC: YHJ, 44F.....	8
5	PAFZZ	5935-01-147-9446	96906	MS90564-7C	. COVER, ELECTRICAL CO UOC: YHJ, 44F.....	1
6	PAFZZ	5935-01-087-0780	96906	MS90558C52413P	. CONNECTOR, RECEPTACLE UOC: YHJ, 44F.....	1
7	PAFZZ	5999-01-217-4144	81343	AS3348-4/0-2/0L	. CONTACT, ELECTRICAL UOC: YHJ, 44F.....	4
8	XBFZZ		97403	13229E5788-3	. PLATE, CONNECTOR, MOUNT UOC: YHJ, 44F.....	1
9	MFFZZ		97403	13229E5815	. GASKET, CONNECTOR, PL UOC: YHJ, 44F.....	1
10	MFFZZ		19099	13229E5809-4-17	. INSULATION SLEEVING MAKE FROM P/N M23053/5-110-4 (81349) 2.5 INCHES REQUIRED UOC: YHJ, 44F.....	5
11	MFFZZ		19099	13229E5809-4-8	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-02-9 (81349) 14.5 INCHES REQUIRED UOC: YHJ, 44F.....	3
12	MFFZZ		19099	13229E5809-4-5	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-4-9 (81349) 22.5 INCHES REQUIRED UOC: YHJ, 44F.....	4
13	MFFZZ		19099	13229E5809-4-18	. INSULATION SLEEVING (MAKE FROM P/N M23053/5-108-4 (81349) 2.5 INCHES REQUIRED UOC: YHJ, 44F.....	4
14	PAFZZ	5940-00-557-4338	81343	MS25036-125	. TERMINAL, LUG UOC: YHJ, 44F.....	4
15	MFFZZ		19099	13229E5809-4-8	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-02-9 (81349) 28 INCHES REQUIRED UOC: YHJ, 44F.....	1
16	PAFZZ	5940-00-025-1821	98410	0190670115	. TERMINAL, LUG UOC: YHJ, 44F.....	1
17	PAFZZ	5940-00-113-9835	81343	MS25036-136	. TERMINAL, LUG UOC: YHJ, 44F.....	3
18	XDFFF		97403	13229E5809-4	WIRING HARNESS, W10 (NOT SHOWN) UOC: YHJ, 44F.....	REF

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020206 LEADS/HARNESSES, W17



Wire No.	Termination		Termination		Wire No.
	From	Item No.	To	Item No.	
1	J3-A	6	K2-12	3	5
2	J3-B	6	K2-Y	3	5
3 (A Model)	J3-E	6	BUS BAR	2	5
3 (B & C Models)	J3-E	6	GND2	2	5

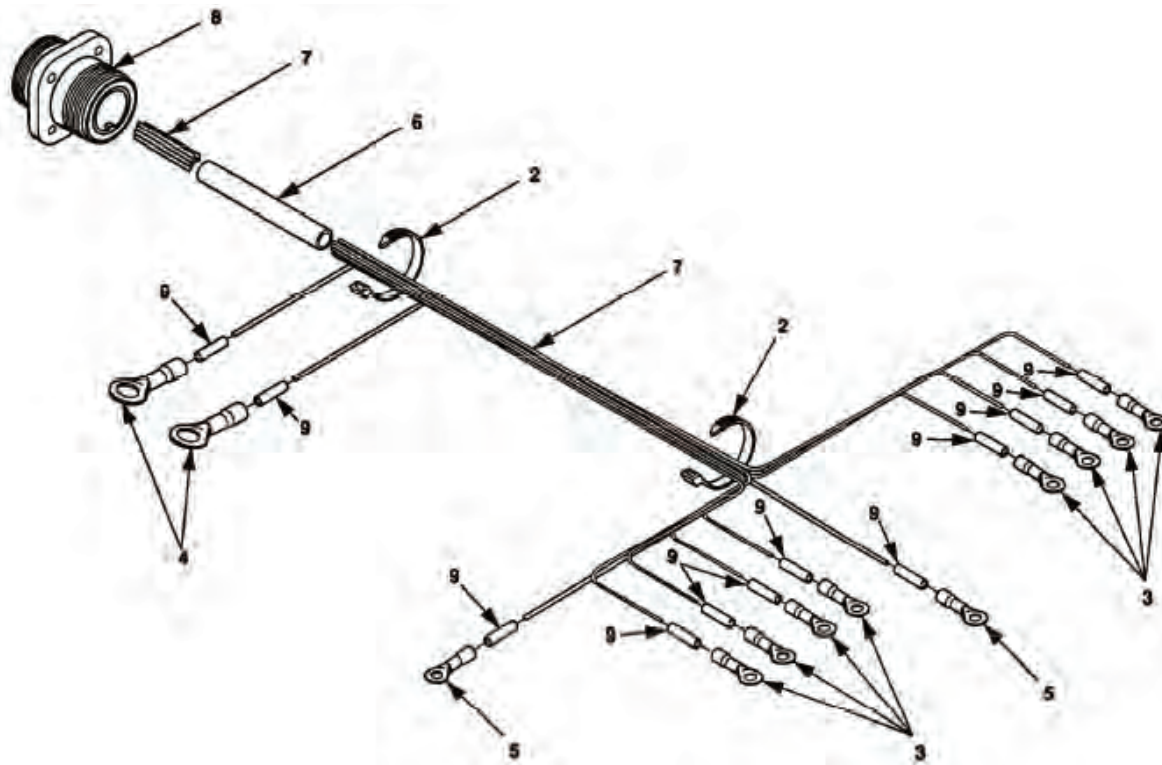
Figure 22. Wiring Harness, Power, W17.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020206						
LEADS/HARNESSES, W17						
1	XDFFF		97403	13229E5806-1	WIRING HARNESS, POWER, W17 (NOT SHOWN) UOC: YHJ, 44F.....	REF
2	PAFZZ	5940-00-230-0515	81343	MS25035-154	. TERMINAL, LUG UOC: YHJ, 44F.....	1
3	PAFZZ	5940-00-143-4780	81343	MS25036-108	. TERMINAL, LUG UOC: YHJ, 44F.....	2
4	MFFZZ		19099	13229E5806-1-5	. INSULATION SLEEVING MAKE FROM P/N M23053/5-104-9 (81349) 2.00 INCHES REQUIRED UOC: YHJ, 44F.....	4
5	MFFZZ		19099	13229E5806-1-2	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-16-9 (81349) AS REQUIRED UOC: YHJ, 44F.....	3
6	PAFZZ	5935-00-852-9611	16236	LO1997	. CONNECTOR, RECEPTACLE UOC: YHJ, 44F.....	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020207 LEADS/HARNESSES, W7



Wire No.	Termination		Termination		Wire No.
	From	Item No.	To	Item No.	
1	J4-A	8	K1-A1	5	7
2	J4-B	8	L0	4	7
3	J4-C	8	KY-1	3	7
4	J4-D	8	K1-X	3	7
5	J4-F	8	K1-11	3	7
6	J4-G	8	K1-12	3	7
7	J4-H	8	K2-12	3	7
8	J4-I	8	K2-11	3	7
9	J4-K	8	K2-X	3	7
10	J4-L	8	K2-Y	3	7
11	J4-M	8	K2-A1	5	7
12	J4-N	8	L0	4	7

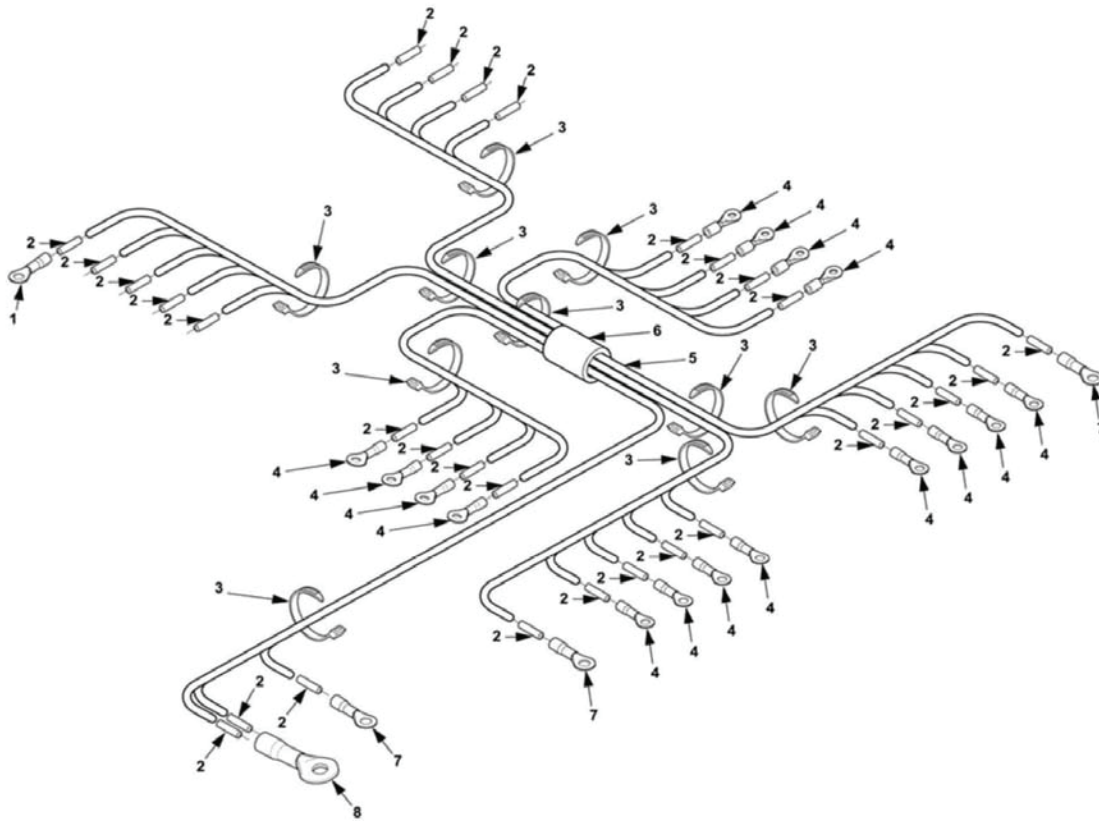
Figure 23. Wiring Harness, W7 (A Model).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020207 LEADS/HARNESSES, W7 FIG. 23 WIRING HARNESS, W7 (A MODEL).						
1				NOT USED		-
2	PAFZZ	5975-00-074-2072	81343	MS3367-1-9	STRAP, TIEDOWN, ELECT UOC: YHJ	V
3	PAFZZ	5940-00-283-5280	81343	MS25036-106	TERMINAL, LUG UOC: YHJ	8
4	PAFZZ		98410	D-753-34	TERMINAL, LUG UOC: YHJ	2
5	PAFZZ	5940-00-143-4793	81343	AS25036-110	TERMINAL, LUG UOC: YHJ	2
6	MFFZZ		19099	M23053/5-108-4	INSULATION SLEEVING MAKE FROM P/N M23053/5-108-4 (81349) 2.5 INCHES REQUIRED UOC: YHJ	1
7	MFFZZ		19099	M22759/16-18-9	WIRE, ELECTRICAL MAKE FROM P/N M22759/16-18-9 (81349) AS REQUIRED UOC: YHJ	1
8	PAFZZ	5935-00-801-6622	96906	MS3100R20-27S	CONNECTOR, RECEPTACLE UOC: YHJ	1
9	MFFZZ		19099	M23053/5-105-4	INSULATION SLEEVING MAKE FROM P/N M23053/5-105-4 (81349) AS REQUIRED UOC: YHJ	12
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020207 LEADS/HARNESSES, W7



Wire No.	Termination		Termination		Wire No.	Remarks
	From	Item No.	To	Item No.		
1	XDS1-1	-	K1-A1	7	5	
2	XDS1-2	-	N	8	5	
3	XDS3-2	-	KY-1	4	5	
4	S1-3	4	K1-X	4	5	
5	S1-5	4	K1-11	4	5	
6	S1-6	4	K1-12	4	5	
7	S2-6	4	K2-12	4	5	
8	S2-5	4	K2-11	4	5	
9	S2-3	4	K2-X	4	5	
10	XDS4-2	-	K2-Y	4	5	
11	XDS2-1	-	K2-A1	7	5	
12	XDS2-2	-	N	8	5	
13	XDS3-1	-	S1-3	4	5	
14	XDS4-1	-	S2-3	4	5	
15	GND	1	GND1	7	5	

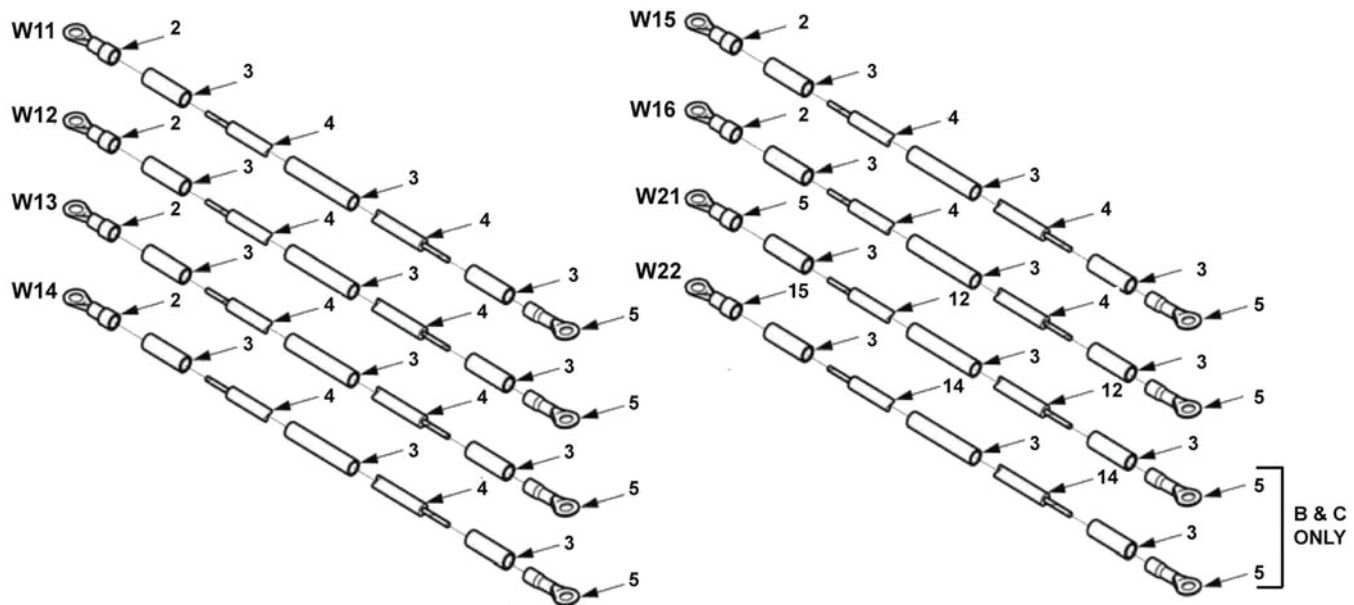
Figure 24. Wiring Harness, W7 (B & C Models).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020207						
LEADS/HARNESSES, W7						
1	PAFZZ	5940-00-143-4771	81343	MS25036-103	. TERMINAL, LUG UOC: YHJ, 44F.....	1
2	MFFZZ		19099	13229E5800-2-10	. INSULATION SLEEVING MAKE FROM P/N M23053/5-105-9 (81349) AS REQUIRED UOC: YHJ, 44F.....	30
3	PAFZZ	5975-00-074-2072	81343	MS3367-1-9	. STRAP, TIEDOWN, ELECT UOC: YHJ, 44F.....	V
4	PAFZZ	5940-00-813-0698	81343	MS25036-101	. TERMINAL, LUG UOC: YHJ, 44F.....	16
5	MFFZZ		19099	13229E5800-2-2	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-18-9 (81349) AS REQUIRED UOC: YHJ, 44F.....	15
6	MFFZZ		19099	13229E5800-2-6	. INSULATION SLEEVING MAKE FROM P/N M23053/5-110-9 (81349) 2.5 INCHES REQUIRED UOC: YHJ, 44F.....	1
7	PAFZZ	5940-00-143-4773	81343	MS25036-105	. TERMINAL, LUG UOC: YHJ, 44F.....	3
8	PAFZZ	5940-01-458-9497	56501	RB14-12	. TERMINAL, LUG UOC: YHJ, 44F.....	1
9	XDFFF		97403	13229E5800-2	WIRING HARNESS, W7 (NOT SHOWN) UOC: YHJ, 44F.....	REF
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020208 LEADS/HARNESSES, W11-W16, W21, W22



Wire No.	REF. DES.	Termination		Termination		Wire No.
		From	Item No.	To	Item No.	
1	W11	K1-A2	5	L1	2	4
6	W12	K1-B2	5	L2	2	4
7	W13	K1-C2	5	L3	2	4
8	W14	K2-A2	5	L1	2	4
9	W15	K2-B2	5	L2	2	4
10	W16	K2-C2	5	L3	2	4
11	W21	GND-2	5	GND-1	5	12
13	W22	GND-1	5	GND	15	14

Figure 25. Electrical Lead, W11-W16, W21, W22.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020208 LEADS/HARNESSES, W11-16, W21, W22 FIG. 25 ELECTRICAL LEAD, W11-W16, W21, W22						
1	AFFFF		97403	13229E5810-7	LEAD, ELECTRICAL, W11 (NOT SHOWN) UOC: YHJ, 44F.....	1
2	PAFZZ	5940-00-025-1821	98410	0190670115	. TERMINAL, LUG STUD SIZE .750 UOC: YHJ, 44F.....	6
3	PAFZZ	5970-00-057-3545	20999	FP301-13/4INYELLOW	. INSULATION SLEEVING MAKE FROM P/N M23053/5-109-4 (81349) AS REQUIRED UOC: YHJ, 44F.....	24
4	PAFZZ	6145-01-218-8221	19099	M22759/16-02-9	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-02-9 (81349) 12.5 INCHES REQUIRED UOC: YHJ, 44F.....	6
5	PAFZZ	5940-00-113-9835	81343	MS25036-136	. TERMINAL, LUG STUD SIZE .375 UOC: YHJ, 44F.....	9
6	AFFFF		97403	13229E5810-8	LEAD, ELECTRICAL, W12 (NOT SHOWN) UOC: YHJ, 44F.....	1
7	AFFFF		97403	13229E5810-9	LEAD, ELECTRICAL, W13 (NOT SHOWN) UOC: YHJ, 44F.....	1
8	AFFFF		97403	13229E5810-17	LEAD, ELECTRICAL, W14 (NOT SHOWN) UOC: YHJ, 44F.....	1
9	AFFFF		97403	13229E5810-18	LEAD, ELECTRICAL, W15 (NOT SHOWN) UOC: YHJ, 44F.....	1
10	AFFFF		97403	13229E5810-19	LEAD, ELECTRICAL, W16 (NOT SHOWN) UOC: YHJ, 44F.....	1
11	AFFFF		97403	13229E5810-20	LEAD, ELECTRICAL, W21 (NOT SHOWN) UOC: YHJ, 44F.....	1
12	MFFZZ		19099	M22759/16-02-9	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-02-9 (81349) 6.5 INCHES REQUIRED UOC: YHJ, 44F.....	1
13	AFFFF		97403	13229E5810-23	LEAD, ELECTRICAL, W22 (NOT SHOWN) UOC: YHJ, 44F.....	1
14	MFFZZ	6145-01-218-8221	81343	M22759/16-02-9	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-02-9 (81349) 9.5 INCHES REQUIRED UOC: YHJ, 44F.....	1

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
15	PAFZZ	5940-01-552-4612	98410	J-787-12	. TERMINAL, LUG STUD SIZE .500 UOC: YHJ, 44F.....	1

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020209 BUS BAR

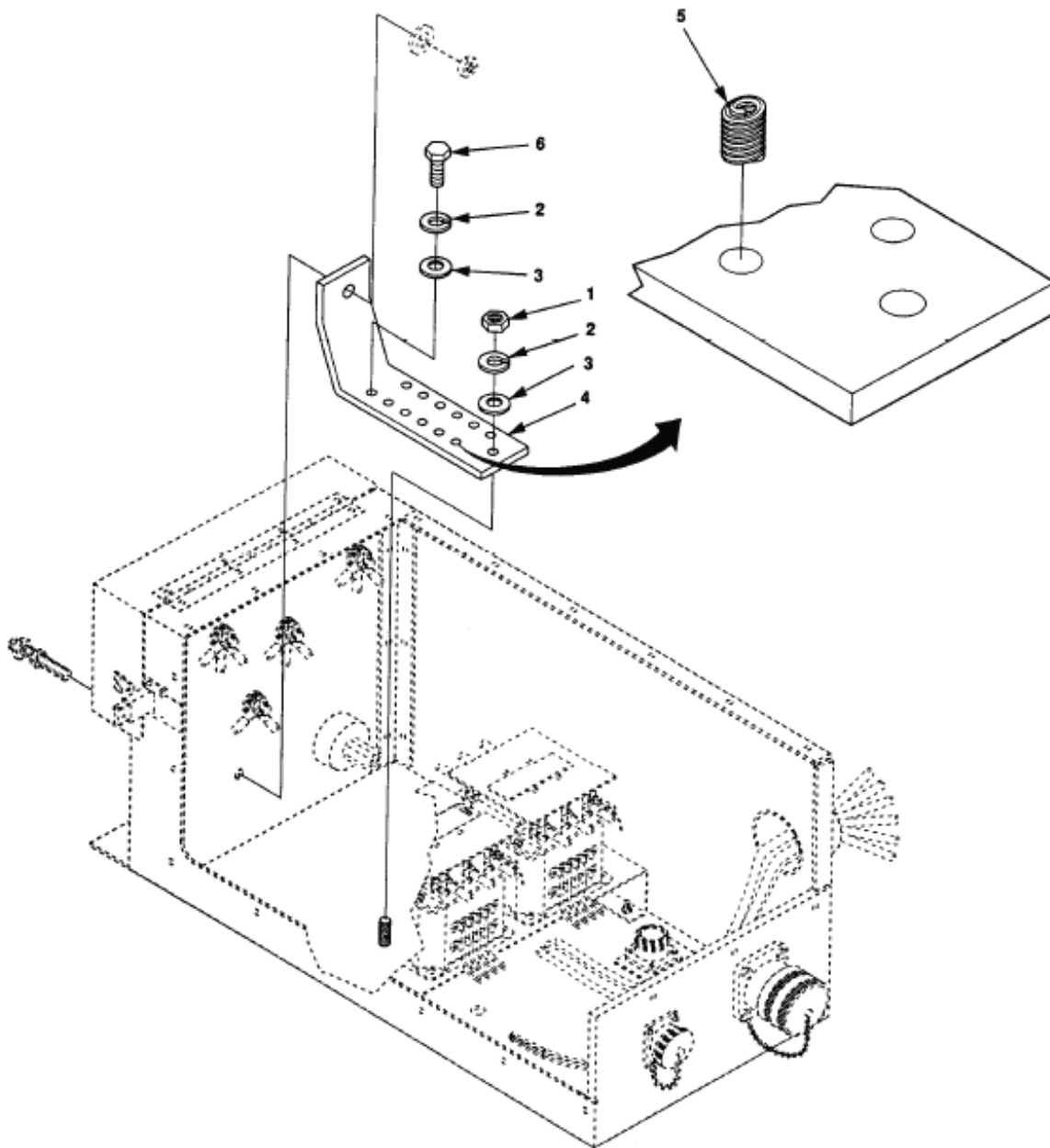


Figure 26. Bus Bar (A Model).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020209 BUS BAR						
FIG. 26 BUS BAR (A MODEL)						
1	PAFZZ	5310-00-250-9477	80205	MS35649-2254	NUT, PLAIN, HEXAGON UOC: YHJ	1
2	PAFZZ	5310-00-933-8121	88907	C13-26992	WASHER, LOCK UOC: YHJ	13
3	PAFZZ	5310-01-304-8733	80205	MS15795-852	WASHER, FLAT UOC: YHJ	13
4	XDFFF		97403	13229E5816-2	BUS BAR, GROUNDING UOC: YHJ	1
5	PAFZZ	5340-00-291-3484	96906	MS124696	INSERT, SCREW THREAD, .250-28, .375 NOM LENGTH UOC: YHJ	12
6	PAFZZ	5305-00-052-1457	80205	MS35308-303	SCREW, CAP, HEXAGON UOC: YHJ	12
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020210 CONTACTOR

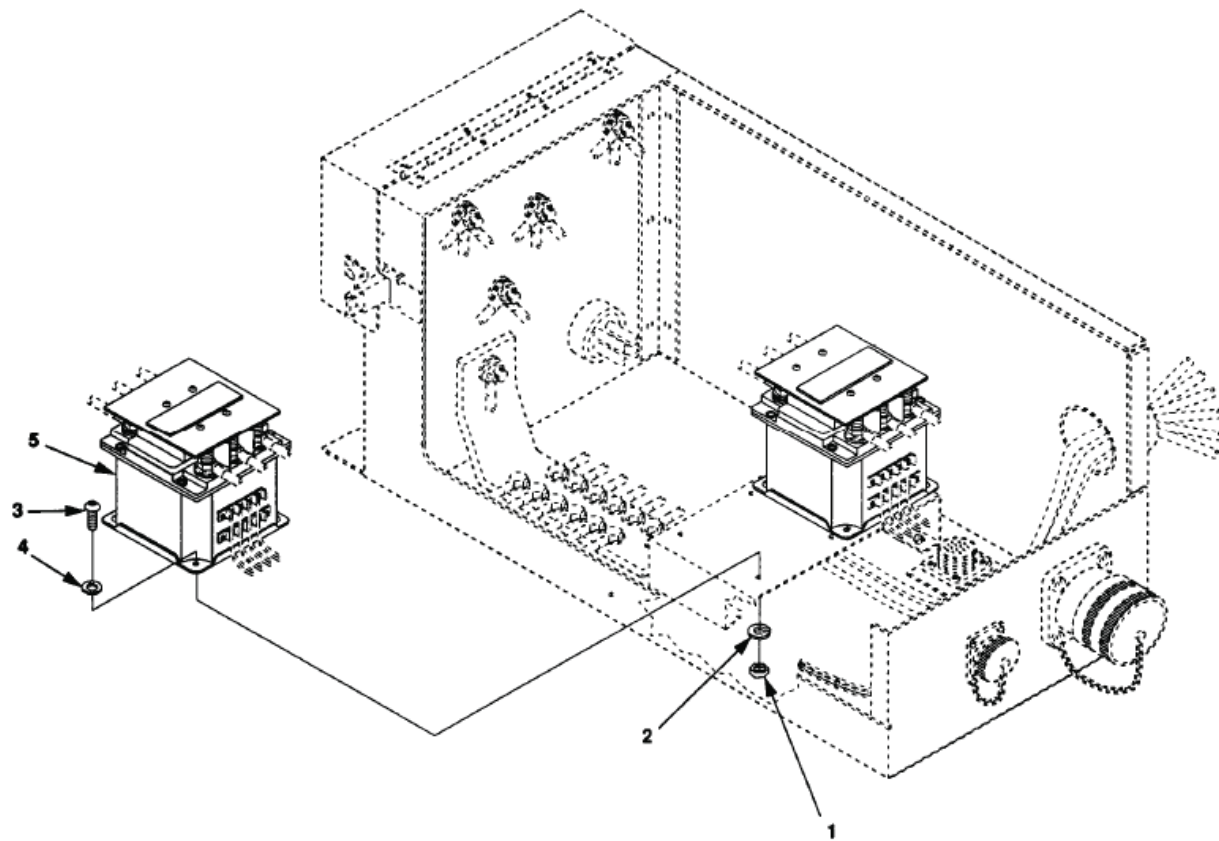


Figure 27. Contactor (A Model).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020210 CONTACTOR						
FIG. 27 CONTACTOR (A MODEL)						
1	PAFZZ	5310-00-934-9760	80205	MS35649-204	NUT, PLAIN, HEXAGON UOC: YHJ	8
2	PAFZZ	5310-00-933-8120	70318	G221439-13	WASHER, LOCK UOC: YHJ	8
3	PAFZZ	5305-00-059-3660	80205	MS51958-64	SCREW, MACHINE UOC: YHJ	8
4	PAFZZ	5310-01-352-9599	80205	MS15795-857	WASHER, FLAT UOC: YHJ	8
5	PAFZZ	6110-01-388-0318	01XD4	CT350E-120E4	CONTACTOR UOC: YHJ	2
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020210 CONTACTOR

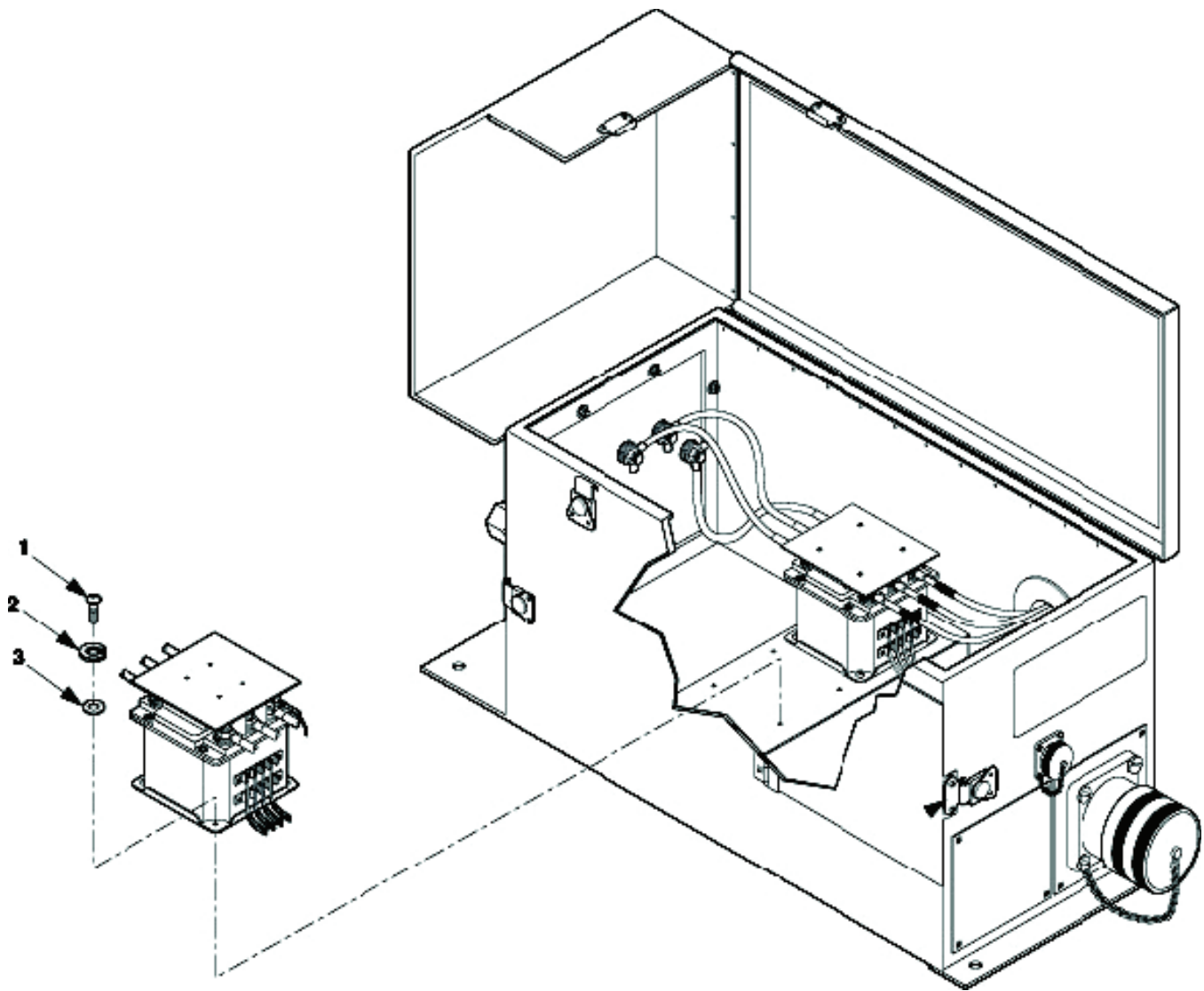


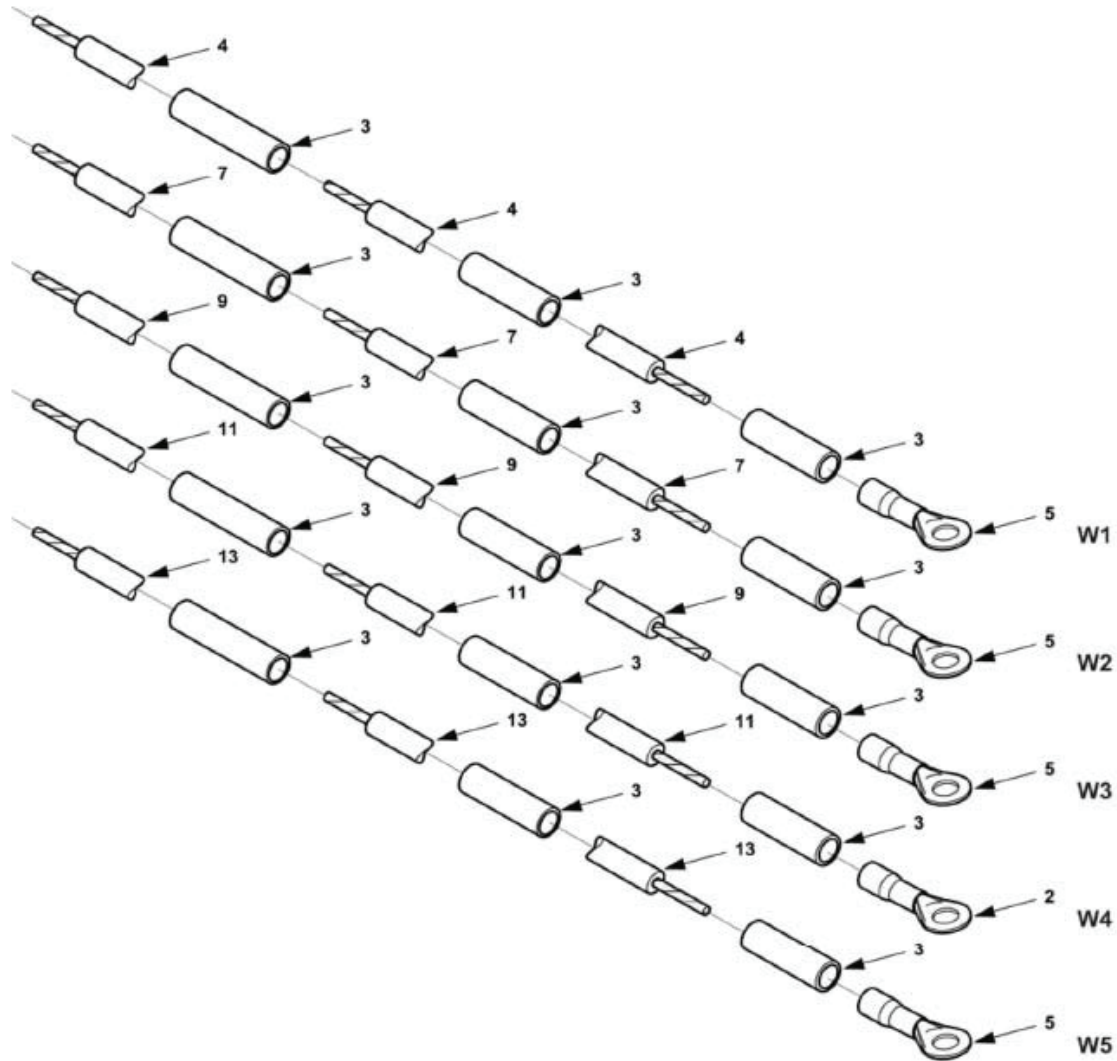
Figure 28. Contactor (B & C Models).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
1	PAFZZ	5305-00-059-3660	80205	MS51958-64	GROUP 020210 CONTACTOR SCREW, MACHINE UOC: YHJ, 44F.....	8
2	PAFZZ	5310-00-933-8120	70318	6221439-15	WASHER, LOCK UOC: YHJ, 44F.....	8
3	PAFZZ	5310-01-471-0640	30554	88-20033-11C	WASHER, FLAT UOC: YHJ, 44F.....	8
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020211 LEADS/HARNESSES, W1-W5



Wire List Group 020208 Electrical Lead, W11 -W16, W21, W22

Wire No.	REF. DES.	Termination		Termination		Wire No.
		From	Item No.	To	Item No.	
1	W1	G1-L1	-	K1-A1	5	4
6	W2	G1-L2	-	K1-B1	5	7
8	W3	G1-L3	-	K1-C1	5	9
10	W4	G1-N	-	N	2	11
12	W5	G1-GND	-	GND-1	5	13

Figure 29. Power Leads, W1-W5.

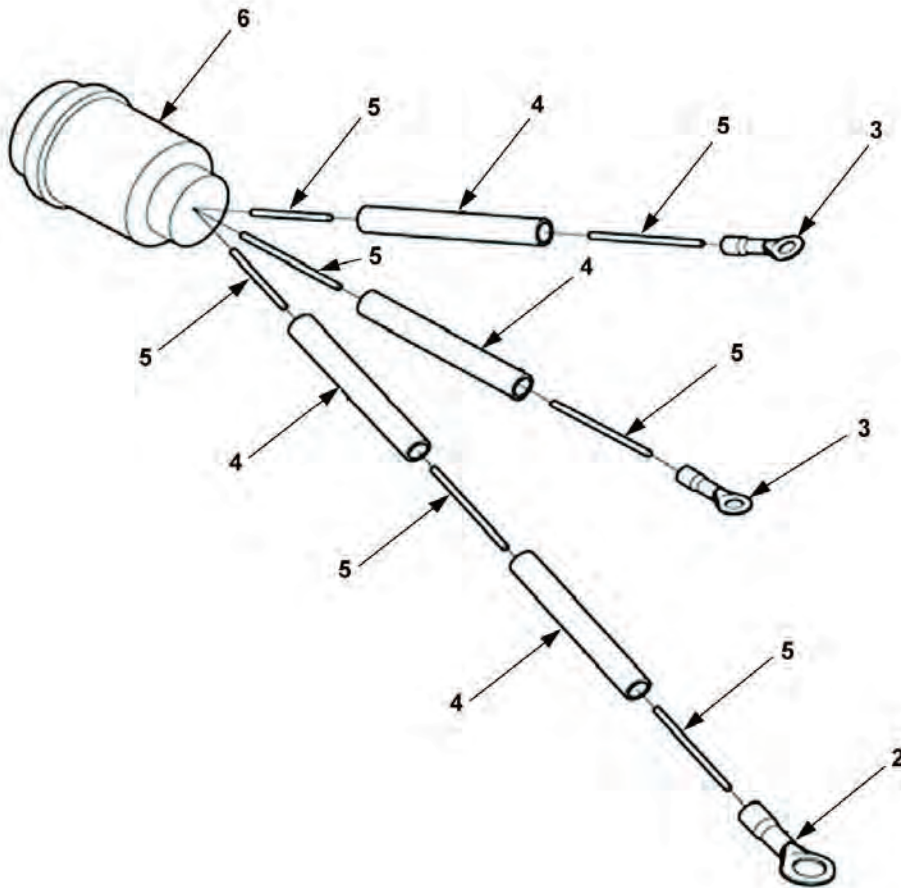
(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020211 LEADS/HARNESSES, W1-W5						
1	AFFZZ		97403	13229E5811-11	LEAD, POWER, W1 (NOT SHOWN) UOC: YHJ, 44F.....	1
2	PAFZZ	5940-00-025-1821	98410	0190670115	. TERMINAL, LUG UOC: YHJ, 44F.....	1
3	PAFZZ	5970-00-057-3545	19099	M23053/5-109-4	. INSULATION SLEEVING MAKE FROM P/N M23053/5-109-4 (81349) 2.5 INCHES REQUIRED UOC: YHJ, 44F.....	15
4	MFFZZ		19099	13229E5811-11-3	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-02-9 (81349) 32 INCHES REQUIRED UOC: YHJ, 44F.....	1
5	PAFZZ	5940-00-113-9835	81343	MS25036-136	. TERMINAL, LUG UOC: YHJ, 44F.....	4
6	AFFZZ		97403	13229E5811-12	LEAD, POWER, W2 (NOT SHOWN) UOC: YHJ, 44F.....	1
7	MFFZZ		19099	13229E5811-12-3	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-02-9 (81349) 37 INCHES REQUIRED UOC: YHJ, 44F.....	1
8	AFFZZ		97403	13229E5811-13	LEAD, POWER, W3 (NOT SHOWN) UOC: YHJ, 44F.....	1
9	MFFZZ		19099	13229E5811-13-3	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-02-9 (81349) 42 INCHES REQUIRED UOC: YHJ, 44F.....	1
10	AFFZZ		97403	13229E5811-14	LEAD, POWER, W4 (NOT SHOWN) UOC: YHJ, 44F.....	1
11	MFFZZ		19099	13229E5811-14-3	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-02-9 (81349) 43 INCHES REQUIRED UOC: YHJ, 44F.....	1
12	AFFZZ		97403	13229E5811-15	LEAD, POWER, W5 (NOT SHOWN) UOC: YHJ, 44F.....	1
13	PAFZZ		19099	13229E5811-15-3	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-02-9 (81349) 33 INCHES REQUIRED UOC: YHJ, 44F.....	1

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

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GROUP 020212 POWER LEAD/HARNESS, W18



Wire List Group 020212 Wiring Harness, Power, W18

Wire No.	Termination		Termination		Wire No.
	From	Item No.	To	Item No.	
1	P1-A	6	K1-12	3	5
2	P1-B	6	K1-Y	3	5
3 (A Model)	P1-E	6	BUS BAR	2	5
3 (B & C Models)	P1-E	6	GND2	2	5

Figure 30. Wiring Harness, Power, W18.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 020212 POWER LEAD/HARNESS, W18						
1	XDFFF		97403	13229E5806-2	WIRING HARNESS, POWER, W18 (NOT SHOWN) UOC: YHJ, 44F.....	1
2	PAFZZ	5940-00-230-0515	81343	MS25035-154	. TERMINAL, LUG UOC: YHJ, 44F.....	1
3	PAFZZ	5940-00-143-4780	97403	13226E0107-13	. TERMINAL, LUG UOC: YHJ, 44F.....	2
4	MFFZZ		19099	13229E5806-2-5	. INSULATION SLEEVING MAKE FROM P/N M23053/5-104-4 (81349) 2.00 INCHES REQUIRED UOC: YHJ, 44F.....	4
5	MFFZZ		19099	13229E5806-2-2	. WIRE, ELECTRICAL MAKE FROM P/N M22759/16-16-9 (81349) AS REQUIRED UOC: YHJ, 44F.....	3
6	PAFZZ	5935-01-035-5139	96906	MS3456W18-11S	. CONNECTOR, PLUG, ELEC UOC: YHJ, 44F.....	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 020213 SWITCH BOX SUPPORT

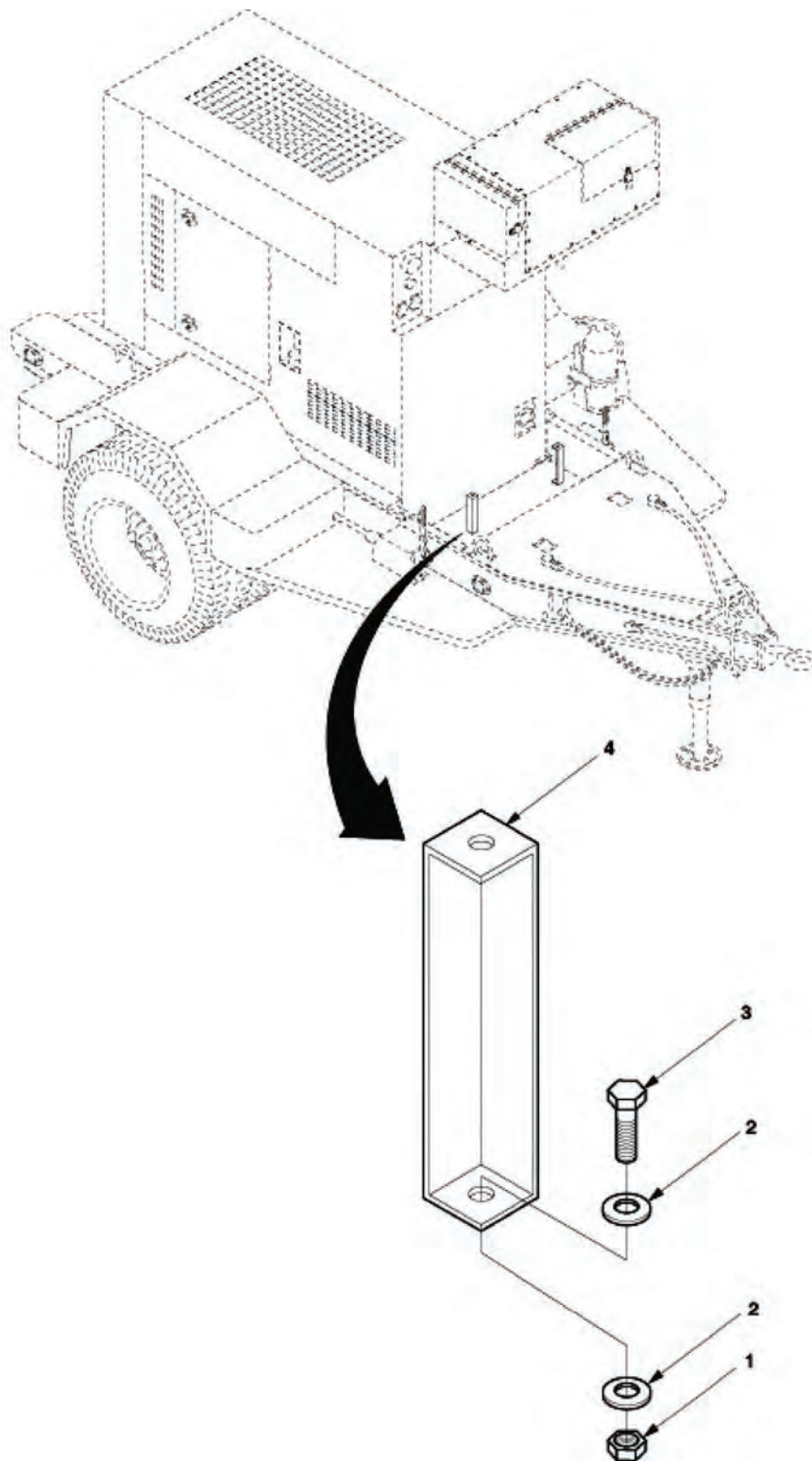


Figure 31. Switch Box Support (A Model).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 020213 SWITCH BOX SUPPORT	
					FIG. 31 SWITCH BOX SUPPORT (A MODEL)	
1	PAFZZ	5310-00-056-3395	80205	MS35649-2382	NUT, PLAIN, HEXAGON UOC: YHJ	2
2	PAFZZ	5310-01-385-7083	96906	MS51412-27	WASHER, FLAT UOC: YHJ	4
3	PAFZZ	5305-00-688-2111	80204	B1821BH038C138N	SCREW, CAP, HEXAGON UOC: YHJ	2
4	XBFZZ		97403	13230E4592	SUPPORT, SWITCH BOX UOC: YHJ	2
					END OF FIGURE	

NOTE

The Switch Box Support (Item 4) and its mounting hardware are used only on models of the trailer that contain the old, step-down type of Front Platform. An example of this platform can be seen in WP 0103, Figure 41.

OPERATOR AND FIELD MAINTENANCE

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GROUP 03 ACCESSORIES

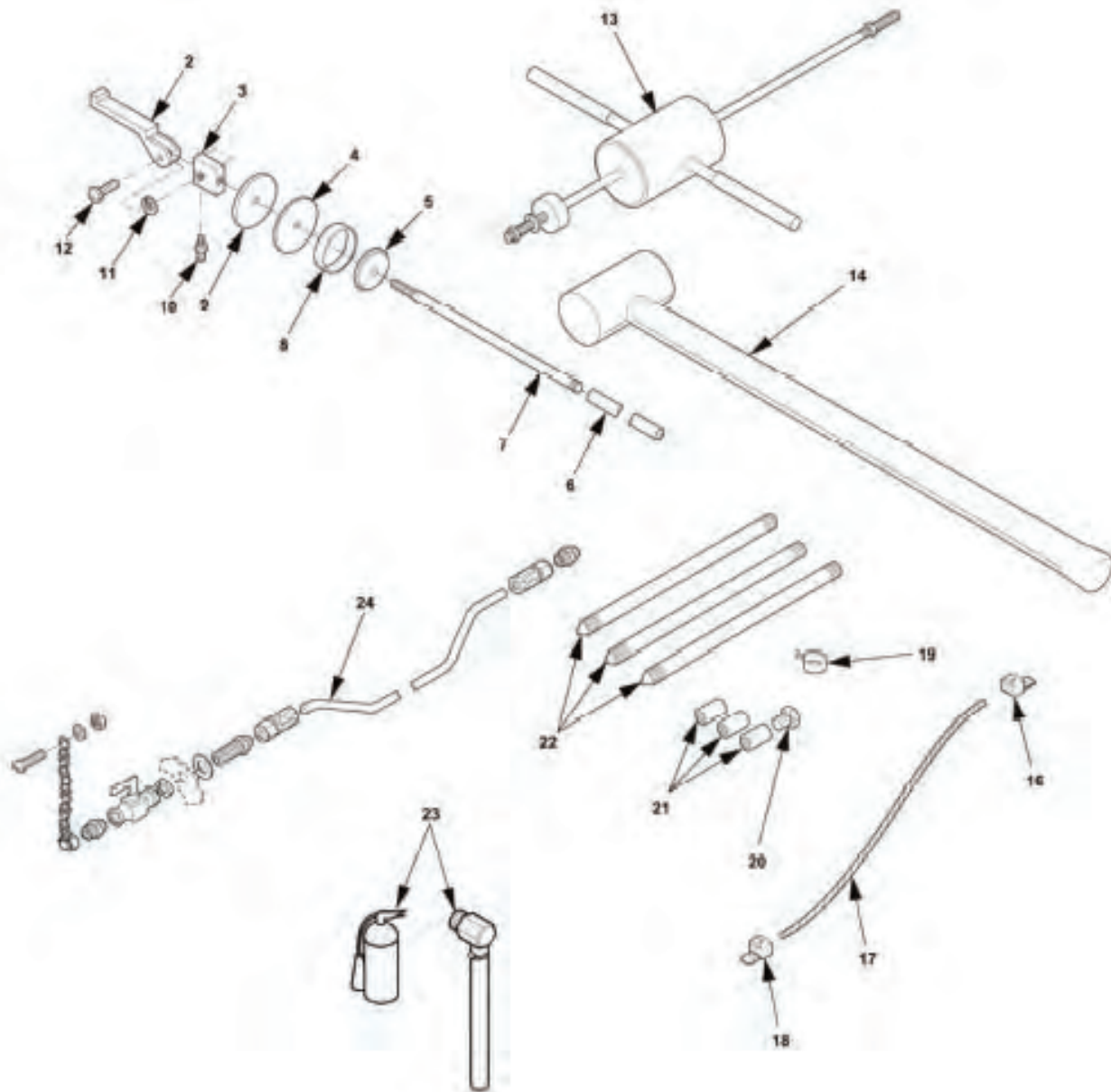


Figure 32. Accessories.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 03 ACCESSORIES						
FIG. 32 ACCESSORIES						
1	PAFZZ	5340-00-066-1235	97403	13211E7541	ADAPTER, CONTAINER (NOT SHOWN) UOC: YFC, 44J, EWA, 44K	1
2	XBFZZ	3740-00-902-1481	97403	13200E6363	. CLAMP, STRAINER UOC: YFC, 44J, EWA, 44K	1
3	XBFZZ		97403	13211E7548	. HEAD UOC: YFC, 44J, EWA, 44K	1
4	XBFZZ	5310-00-408-2561	97403	13211E7547	. WASHER, FLAT UOC: YFC, 44J, EWA, 44K	1
5	PAFZZ	5310-00-566-9502	97403	13211E7544	. WASHER, RECESSED UOC: YFC, 44J, EWA, 44K	1
6	PAFZZ	4710-00-597-8731	97403	13211E7542	. PIPE, METALLIC UOC: YFC, 44J, EWA, 44K	1
7	PAFZZ	4710-00-185-6948	97403	13211E7543	. PIPE, METALLIC UOC: YFC, 44J, EWA, 44K	1
8	PAFZZ	5330-00-402-5125	97403	13211E7546	. GASKET UOC: YFC, 44J, EWA, 44K	1
9	XBFZZ	5310-00-571-5090	97403	13200E6361	. WASHER, FLAT UOC: YFC, 44J, EWA, 44K	1
10	PAFZZ	4730-00-441-8700	96906	MS51500A8-4	. ADAPTER, STRAIGHT UOC: YFC, 44J, EWA, 44K	1
11	PAFZZ	5310-00-209-1239	96906	MS35335-60	. WASHER, LOCK UOC: YFC, 44J, EWA, 44K	2
12	PAFZZ	5305-00-841-2681	0MTR9	DAS-A1-19	. SCREW, SHOULDER UOC: YFC, 44J, EWA, 44K	2
13	PAFZZ	5120-01-013-1676	45225	P74-144	DRIVER/PULLER UOC: YFC, 44J, EWA, 44K	1
14	PAFZZ	5120-00-203-4656	58536	A-A-1293	HAMMER, HAND UOC: YFC, 44J, EWA, 44K	1
15	PAFZZ	5975-00-878-3791	58536	AA55804-36-9FT	ROD, GROUND WITH ATTA (NOT SHOWN) UOC: YFC, 44J, EWA, 44K	1
16	PAFZZ	5940-00-271-9504	01667	CBA-70	. TERMINAL, LUG UOC: YFC, 44J, EWA, 44K	1
17	PAFZZ	6145-01-226-9164	58836	AA59551-C06B1B	. WIRE, ELECTRICAL MAKE AS REQUIRED UOC: YFC, 44J, EWA, 44K	1
18	PAFZZ	5940-00-113-8190	81343	MS25036-122	. TERMINAL, LUG UOC: YFC, 44J, EWA, 44K	1
19	PAFZZ	5999-00-186-3912	04655	70-801074	. CLAMP, ELECTRICAL UOC: YFC, 44J, EWA, 44K	1
20	PAFZZ	5975-00-924-9927	74159	60DS	. DRIVE HEAD UOC: YFC, 44J, EWA, 44K	1
21	PAFZZ	5975-00-794-2523	06V46	GRC 58	. COUPLING, GROUND ROD UOC: YFC, 44J, EWA, 44K	3
22	PAFZZ	5975-00-296-5324	58536	AA55804-2B	. ROD, GROUND UOC: YFC, 44J, EWA, 44K	3

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
23	AFFZZ		30554	13230E6380-4A	OIL DRAIN AND FIRE EXTIN- GUISHER (SEE UOC: YFC, 44J, EWA, 44K REF	
24	AFFZZ		30554	13230E6381-2A	FUEL DRAIN ASSEMBLY (SEE UOC: YFC, 44J, EWA, 44K REF	
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 03 ACCESSORIES

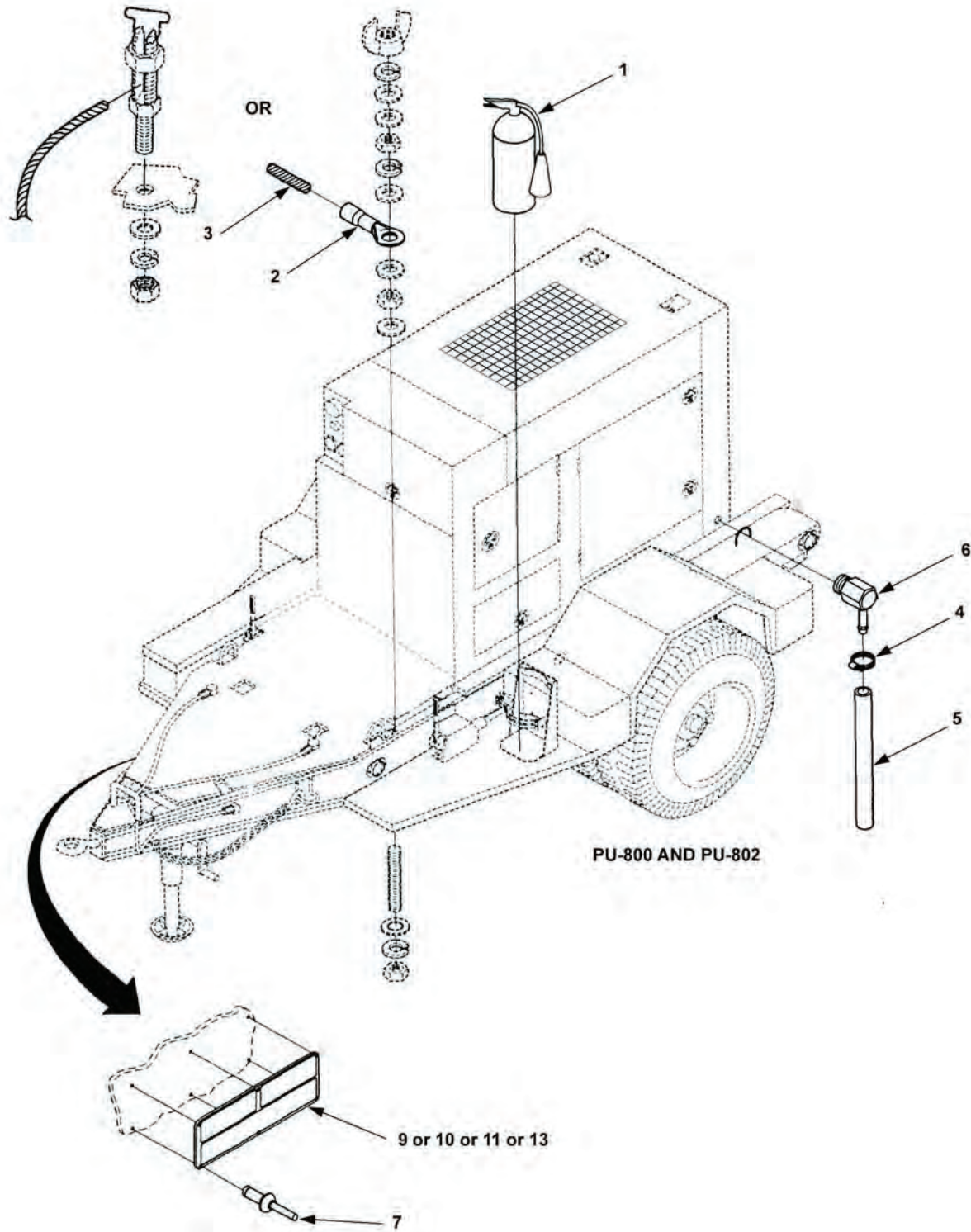


Figure 33. Oil Drain, Fire Extinguisher, and Ground Cable.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 03 ACCESSORIES						
FIG. 33 OIL DRAIN, FIRE EXTINGUISHER, AND GROUND CABLE						
1	PAFZZ	4210-00-270-4512	80063	SCD539482	EXTINGUISHER, FIRE UOC: YFC, 44J, EWA, 44K	1
2	PAFZZ	5940-00-113-8190	81343	MS20536-122	TERMINAL, LUG UOC: YFC, 44J, EWA, 44K	1
3	PAFZZ	6145-01-226-9164	58536	AA59551-C06B1B	WIRE, ELECTRICAL MAKE AS REQUIRED UOC: YFC, 44J, EWA, 44K	1
4	PAFZZ	4730-00-908-3194	58536	A-A-52506-F-12	CLAMP, HOSE UOC: YFC, 44J, EWA, 44K	1
5	PAFZZ	4720-01-386-4210	81349	M6000-F-00200	HOSE, NONMETALLIC MAKE AS REQUIRED UOC: YFC, 44J, EWA, 44K	1
6	PAFZZ	4730-00-809-9703	81343	11231-2B-9-431460	ELBOW, PIPE TO HOSE UOC: YFC, 44J, EWA, 44K	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 03 ACCESSORIES: FUEL DRAIN ASSEMBLY

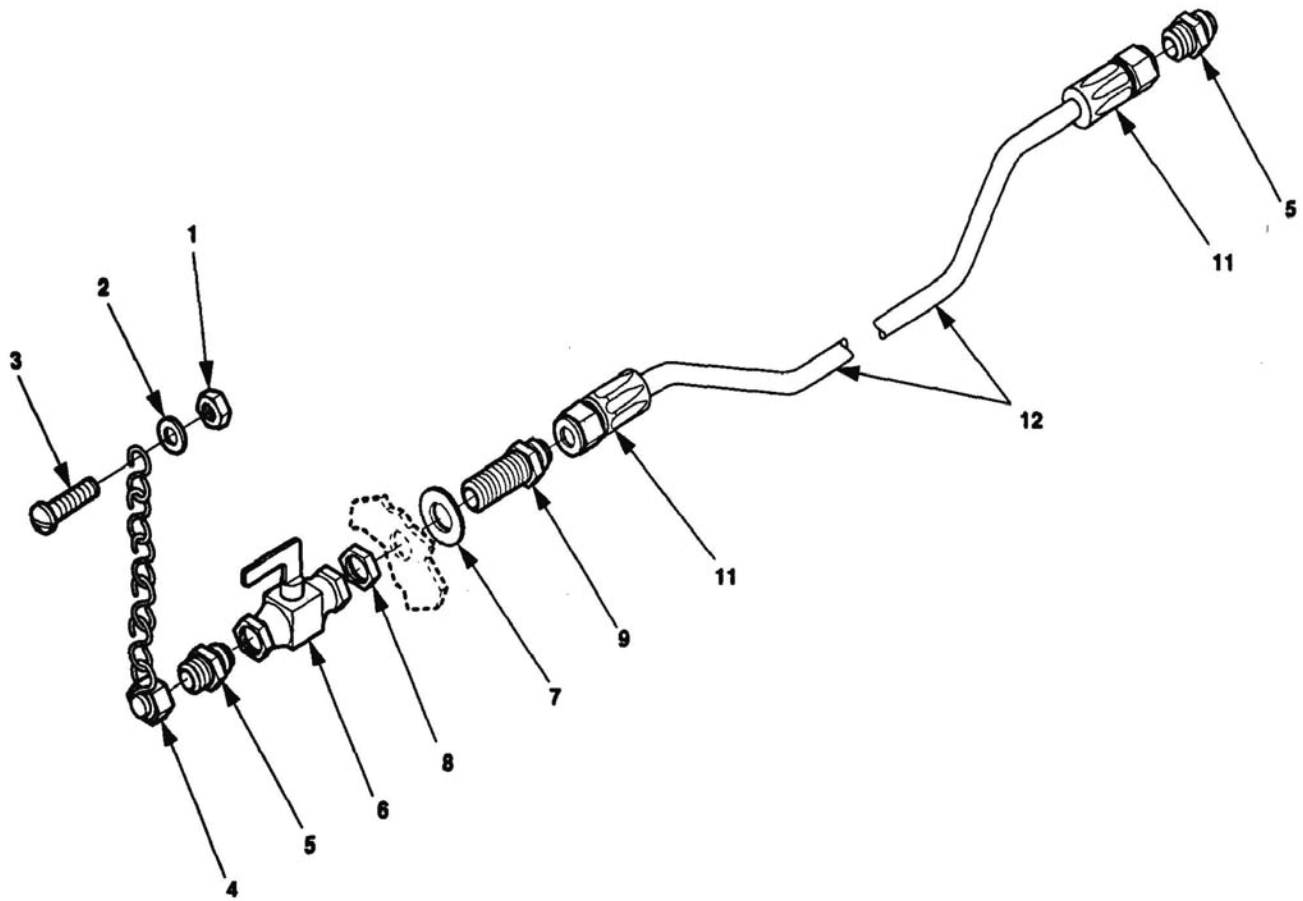


Figure 34. Fuel Drain Assembly.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 03 ACCESSORIES						
FIG. 34 FUEL DRAIN ASSEMBLY.						
1	PAFZZ	5310-00-088-1251	81349	M45913/1-4CG5C	NUT, SELF-LOCKING, HEX UOC: YFC, 44J, EWA, 44K	1
2	PAFZZ	5310-01-304-8733	80205	M515795-852	WASHER, FLAT UOC: YFC, 44J, EWA, 44K	2
3	PAFZZ	5305-00-988-1727	80205	MS35206-283	SCREW, MACHINE UOC: YFC, 44J, EWA, 44K	1
4	PAFZZ	4730-00-812-1333	30554	69-539-2	CAP, TUBE UOC: YFC, 44J, EWA, 44K	1
5	PAFZZ	4730-01-297-0185	96906	MS51519A5Z	NIPPLE, BOSS, TUBE UOC: YFC, 44J, EWA, 44K	1
6	PAFZZ	4820-00-277-1765	96906	MS35930-2	COCK, PLUG UOC: YFC, 44J, EWA, 44K	1
7	PAFZZ	4730-01-020-5607	96906	MS51860-54	LOCKNUT, TUBE FITTING UOC: YFC, 44J, EWA, 44K	1
8	PAFZZ	5310-00-809-5997	96906	MS27183-17	WASHER, FLAT UOC: YFC, 44J, EWA, 44K	1
9	PAFZZ	4730-01-386-1770	96906	MS51520A5Z	NIPPLE, TUBE UOC: YFC, 44J, EWA, 44K	1
10	AFFFF		96906	MS52103A050440R	HOSE ASSEMBLY UOC: YFC, 44J, EWA, 44K	1
11	PAFZZ	4730-00-842-2201	96906	MS24587-5CC	. ADAPTER, STRAIGHT, TUBE UOC: YFC, 44J, EWA, 44K	2
12	PAFZZ		19099	MS52103-2	. HOSE, NONMETALLIC MAKE FROM P/N FC173-5 (01276) 42 INCHES REQUIRED UOC: YFC, 44J, EWA, 44K	1
12	PAFZZ		19099	MS52103-2	. HOSE, NONMETALLIC MAKE FROM P/N FC173-5 (01276) 39 INCHES REQUIRED UOC: YFC, 44J, EWA, 44K	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 04 TRAILER ASSEMBLY

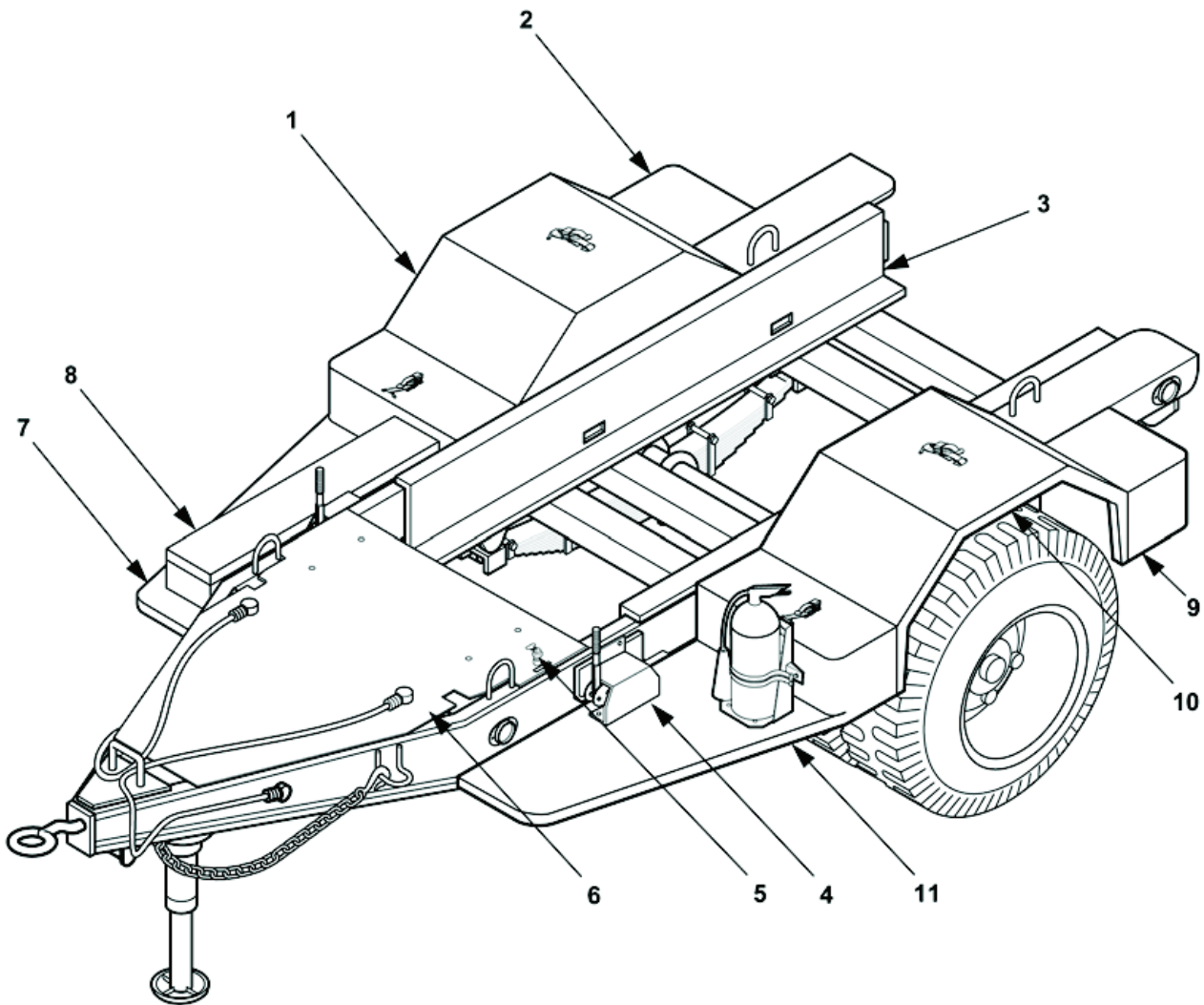


Figure 35. Trailer Assembly.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
1	PAFZZ	2510-01-195-4273	97403	13214E1263	GROUP 04 TRAILER ASSEMBLY FENDER, VEHICULAR (SEE FIGURE 35 FOR PARTS BREAK-DOWN) UOC: YFC, 44J, EWA, 44K	1
2	PAFZZ		97403	13214E1259	STEP, REAR, CURBSIDE (SEE FIGURE 36 FOR PARTS BREAK-DOWN) UOC: YFC, 44J, EWA, 44K	1
3	XAFZZ		97403	13229E9633	CHASSIS, TRAILER, 2.5 TON (SEE FIGURE 43 FOR INSTALLATION) (SEE TM 9-2330-205-14&P FOR PARTS BREAKDOWN) UOC: YFC, 44J, EWA, 44K	1
4	AFFFF		97403	13229E9632A	BRAKE ASSEMBLY (SEE FIGURE 39, Figure 39 FOR PARTS BREAK-DOWN) UOC: YFC, 44J, EWA, 44K	2
5	AFFZZ	5940-00-021-3321	96906	MS39347-2	TERMINAL, GROUND STUD (SEE WP 0104, FIGURE 42 FOR PARTS BREAKDOWN) UOC: YFC, 44J, EWA, 44K	1
6	XBFFF		97403	13229E6108	PLATFORM, FRONT (SEE WP 0103, FIGURE 41 FOR PARTS BREAKDOWN) UOC: YFC, 44J, EWA, 44K	1
7	PAFZZ	2330-01-150-9864	97403	13214E1461	STEP, FRONT, CURBSIDE (SEE FIGURE 40 FOR PARTS BREAK-DOWN) UOC: YFC, 44J, EWA, 44K	1
8	PAFZZ	2540-01-417-8036	97403	13229E7946	BOX, ACCESSORY STOWAGE (SEE FIGURE 37 FOR PARTS BREAKDOWN) UOC: YFC, 44J, EWA, 44K	1
9	PAFZZ		97403	13214E1261	STEP, REAR, ROADSIDE (SEE FIGURE 36 FOR PARTS BREAK-DOWN) UOC: YFC, 44J, EWA, 44K	1
10	PAFZZ	2510-01-535-1092	97403	13214E1264	FENDER, VEHICULAR (SEE FIGURE 38 FOR PARTS BREAK-DOWN) UOC: YFC, 44J, EWA, 44K	1
11	PAFZZ	2510-01-196-4682	97403	13214E1462	STEP, FRONT, CURBSIDE (SEE FIGURE 40 FOR PARTS BREAK-DOWN) UOC: YFC, 44J, EWA, 44K	1

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 04 TRAILER ASSEMBLY

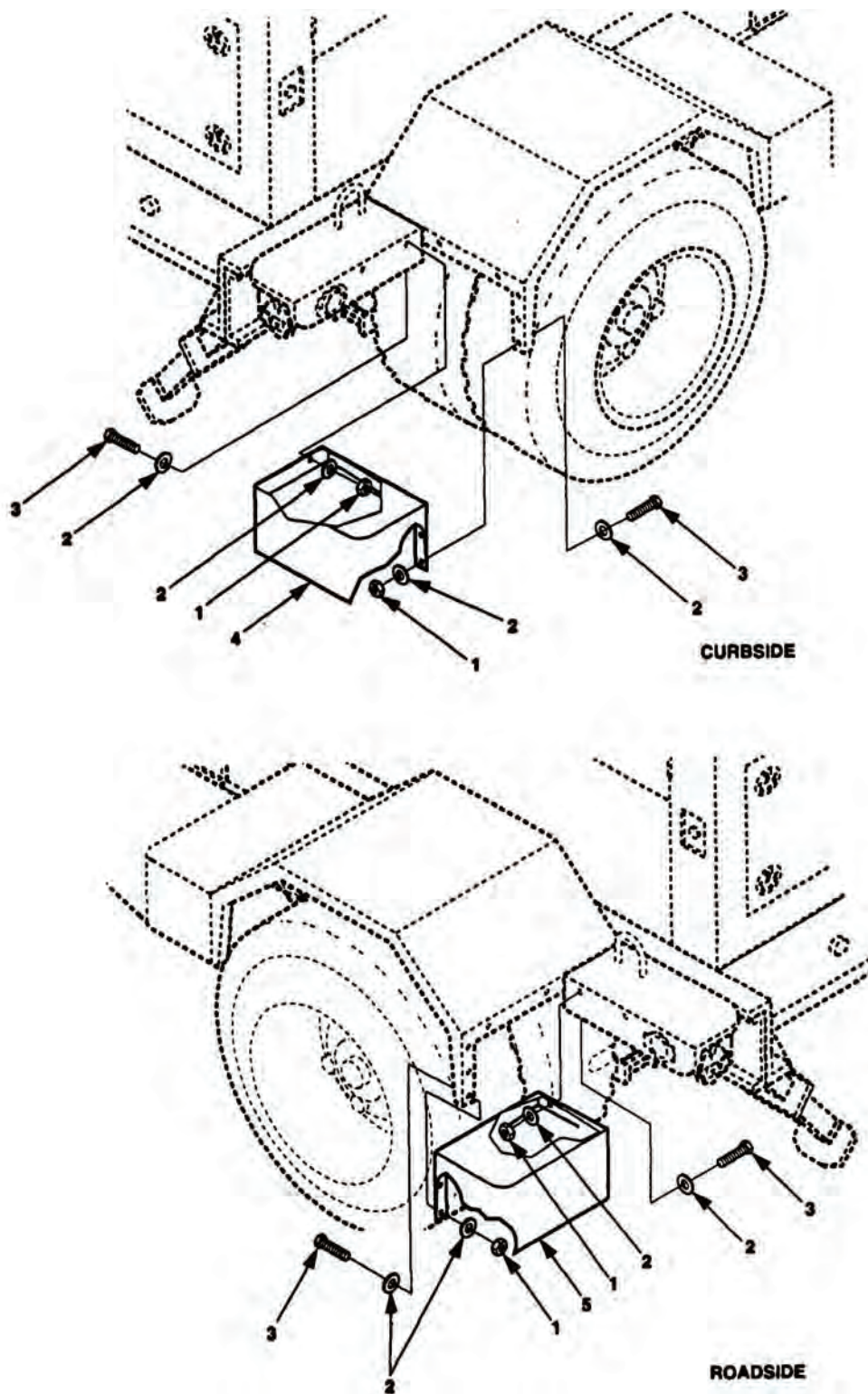


Figure 36. Rear Steps.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 TRAILER ASSEMBLY						
1	PAFZZ	5306-00-226-4829	80204	B1821BH031C125N	BOLT, MACHINE UOC: YFC, 44J, EWA, 44K	14
2	PAFZZ	5310-00-044-6477	96906	MS51412-25	WASHER, FLAT UOC: YFC, 44J, EWA, 44K	28
3	PAFZZ	5310-00-984-3806	81349	M45913/1-5CG5C	NUT, SELF-LOCKING, HEX UOC: YFC, 44J, EWA, 44K	14
4	XDFFF		97403	13214E1259	STEP, REAR CURBSIDE UOC: YFC, 44J, EWA, 44K	--
5	XDFFF		97403	13214E1261	STEP, REAR ROADSIDE UOC: YFC, 44J, EWA, 44K	--
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 04 TRAILER ASSEMBLY

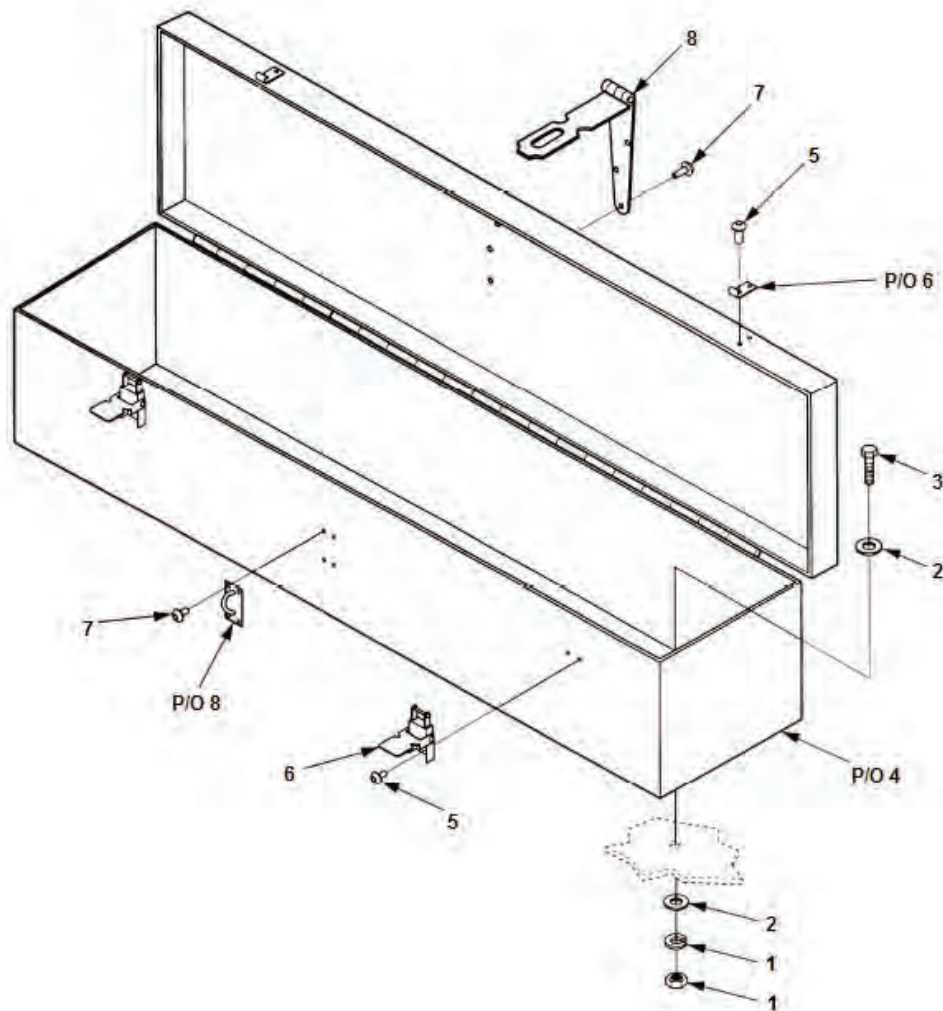


Figure 37. Accessory Box.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 TRAILER ASSEMBLY						
1	PAFZZ	5340-00-234-8422	96906	MS27969-4	HASP, HINGED UOC: YFC, 44J, EWA, 44K	1
2	PAFZZ	5320-00-680-8779	80205	MS20427-4C6	RIVET, SOLID UOC: YFC, 44J, EWA, 44K	8
3	PAFZZ	5320-00-753-3830	80205	MS20613-4P5	RIVET, SOLID UOC: YFC, 44J, EWA, 44K	8
4	PAFZZ	5306-00-226-4829	80204	B1821BH031C125N	BOLT, MACHINE UOC: YFC, 44J, EWA, 44K	4
5	PAFZZ	5310-00-044-6477	96906	MS51412-25	WASHER, FLAT UOC: YFC, 44J, EWA, 44K	8
6	PAFZZ	5310-00-984-3806	81349	M45913/1-5CG5C	NUT, SELF-LOCKING, HEX UOC: YFC, 44J, EWA, 44K	4
7	PAFZZ	5340-00-975-2126	98003	HC83314-802SS416	CATCH, CLAMPING UOC: YFC, 44J, EWA, 44K	2
8	XDFZZ	2540-01-417-8036	97403	13229E7946	ACCESSORY BOX UOC: YFC, 44J, EWA, 44K	--
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 04 TRAILER ASSEMBLY

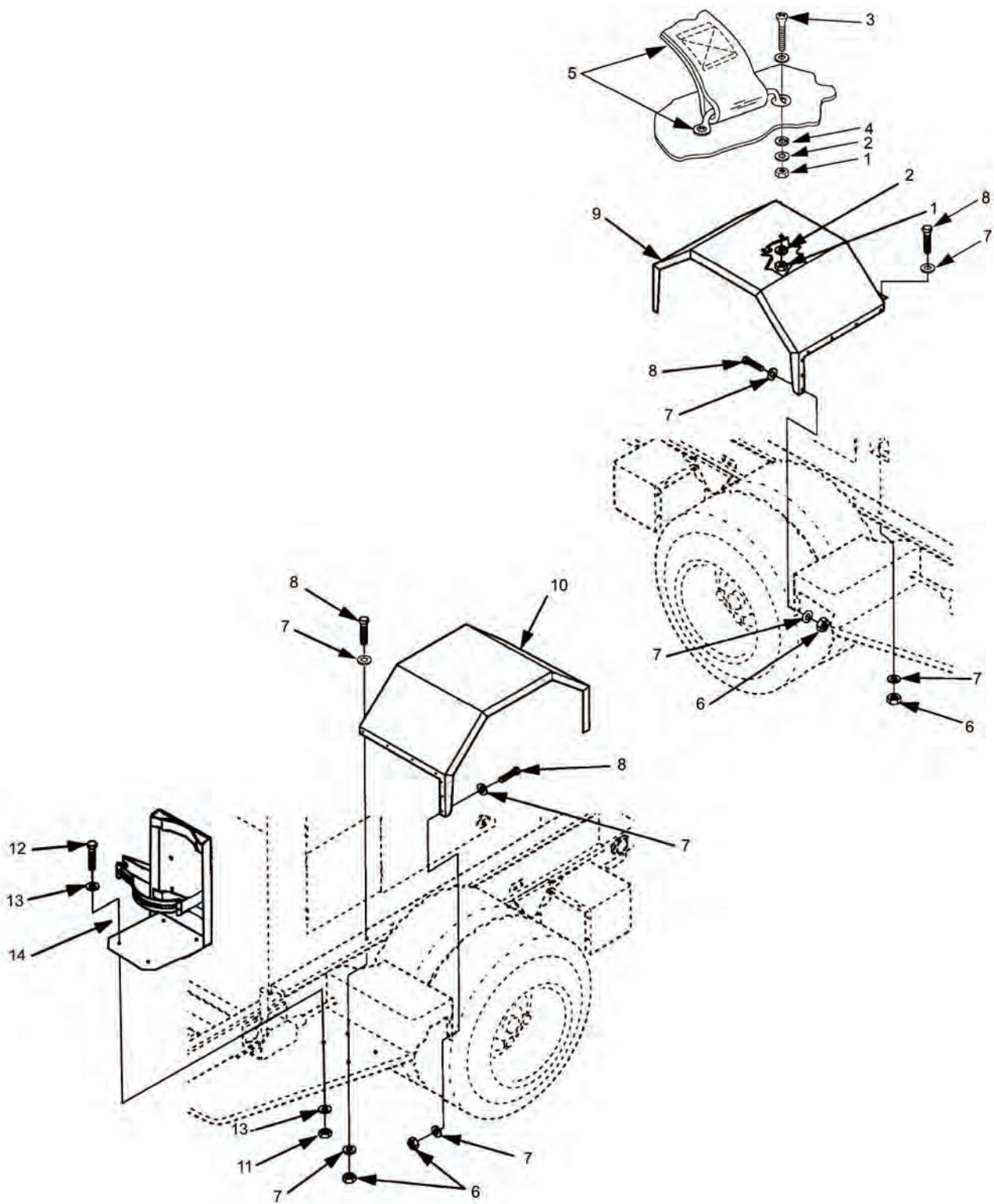


Figure 38. Fenders.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 TRAILER ASSEMBLY						
1	PAFZZ	5306-00-226-4829	80204	B1821BH031C125N	BOLT, MACHINE UOC: YFC, 44J, EWA, 44K	24
2	PAFZZ	5310-00-044-6477	96906	MS51412-25	WASHER, FLAT UOC: YFC, 44J, EWA, 44K	48
3	PAFZZ	5310-00-984-3806	81349	M45913/1-5CG5C	NUT, SELF-LOCKING, HEX UOC: YFC, 44J, EWA, 44K	24
4	PAFZZ		97403	13230E6382-4	NUT, SELF-LOCKING, HEX UOC: YFC, 44J, EWA, 44K	4
5	XDFZZ	4210-01-535-1439	0J0S5	270191	BRACKET, FIRE EXTING UOC: YFC, 44J, EWA, 44K	1
6	PAFZZ	5310-00-044-6477	96906	MS51412-25	WASHER, FLAT UOC: YFC, 44J, EWA, 44K	8
7	PAFZZ	5306-00-226-4827	80204	B1821BH031C100N	BOLT, MACHINE, SCREW, CAP, HEXAGON UOC: YFC, 44J, EWA, 44K	4
8	PAFFF	2510-01-195-4273	97403	13214E1263	FENDER, VEHICULAR, CURBSIDE UOC: YFC, 44J, EWA, 44K	--
9	PAFFF	2510-01-213-3242	97403	13214E1264	FENDER, ROADSIDE UOC: YFC, 44J, EWA, 44K	--
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 04 TRAILER ASSEMBLY

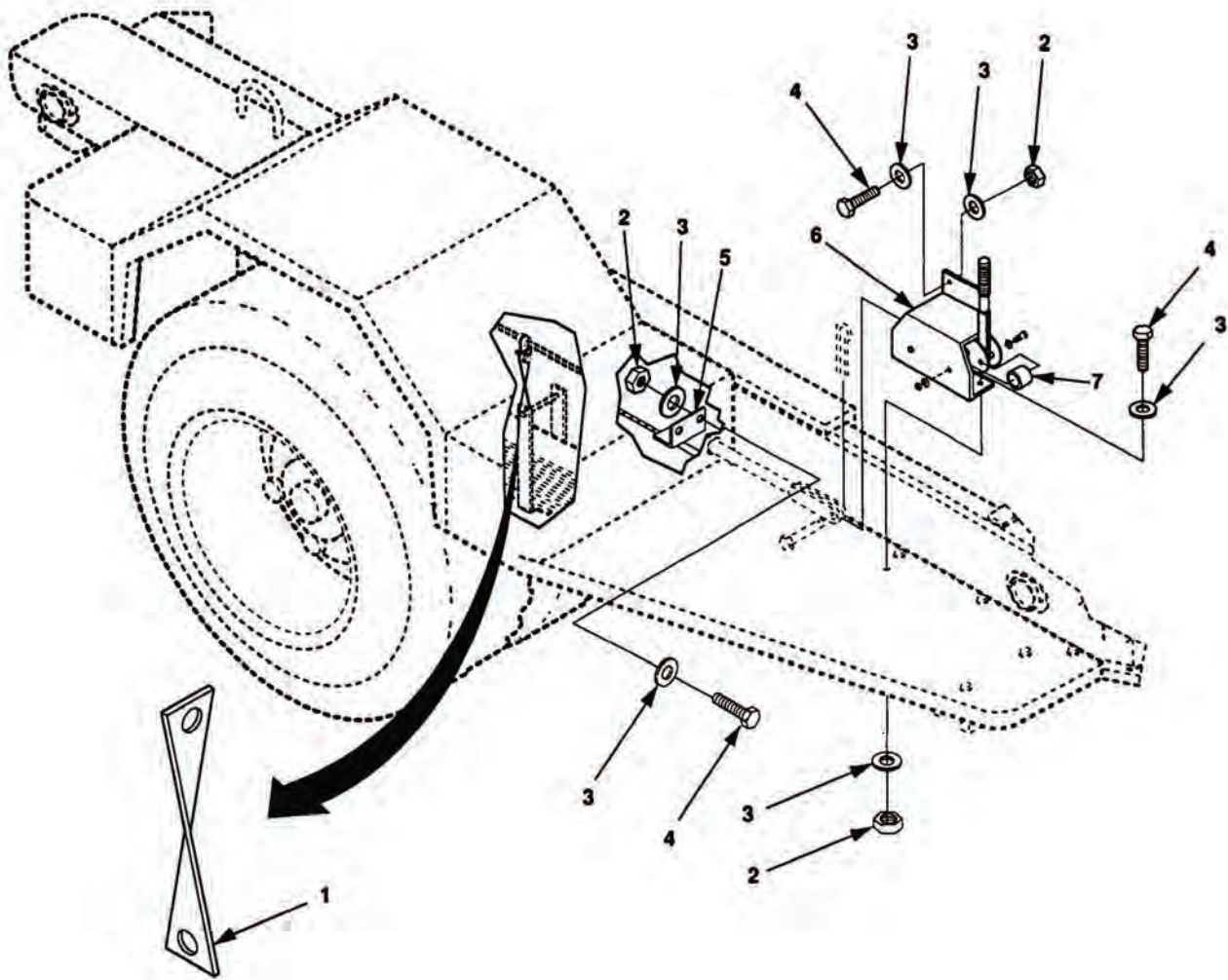


Figure 39. Brake Assembly.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 TRAILER ASSEMBLY						
FIG. 39 BRAKE ASSEMBLY						
1	PAFZZ	5310-00-984-3806	81349	M45913/1-5CG5C	NUT, SELF-LOCKING, HEX UOC: YFC, 44J, EWA, 44K	12
2	PAFZZ	5310-00-044-6477	96906	MS51412-25	WASHER, FLAT UOC: YFC, 44J, EWA, 44K	24
3	XDFZZ		97403	13214E1270	BRACKET, ANGLE UOC: YFC, 44J, EWA, 44K	2
4	XDFZZ	5342-01-226-5766	97403	13214E1269	BRACKET, BRAKE UOC: YFC, 44J, EWA, 44K	2
5	PAFZZ	5306-00-226-4829	80204	B1821BH031C125N	BOLT, MACHINE UOC: YFC, 44J, EWA, 44K	12
6	PAFZZ	5365-00-989-3304	97403	13214E1272	SPACER, SLEEVE UOC: YFC, 44J, EWA, 44K	4
7	XDFZZ		97403	13214E1271	STRAP, BRAKE, CABLE UOC: YFC, 44J, EWA, 44K	2
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 04 TRAILER ASSEMBLY

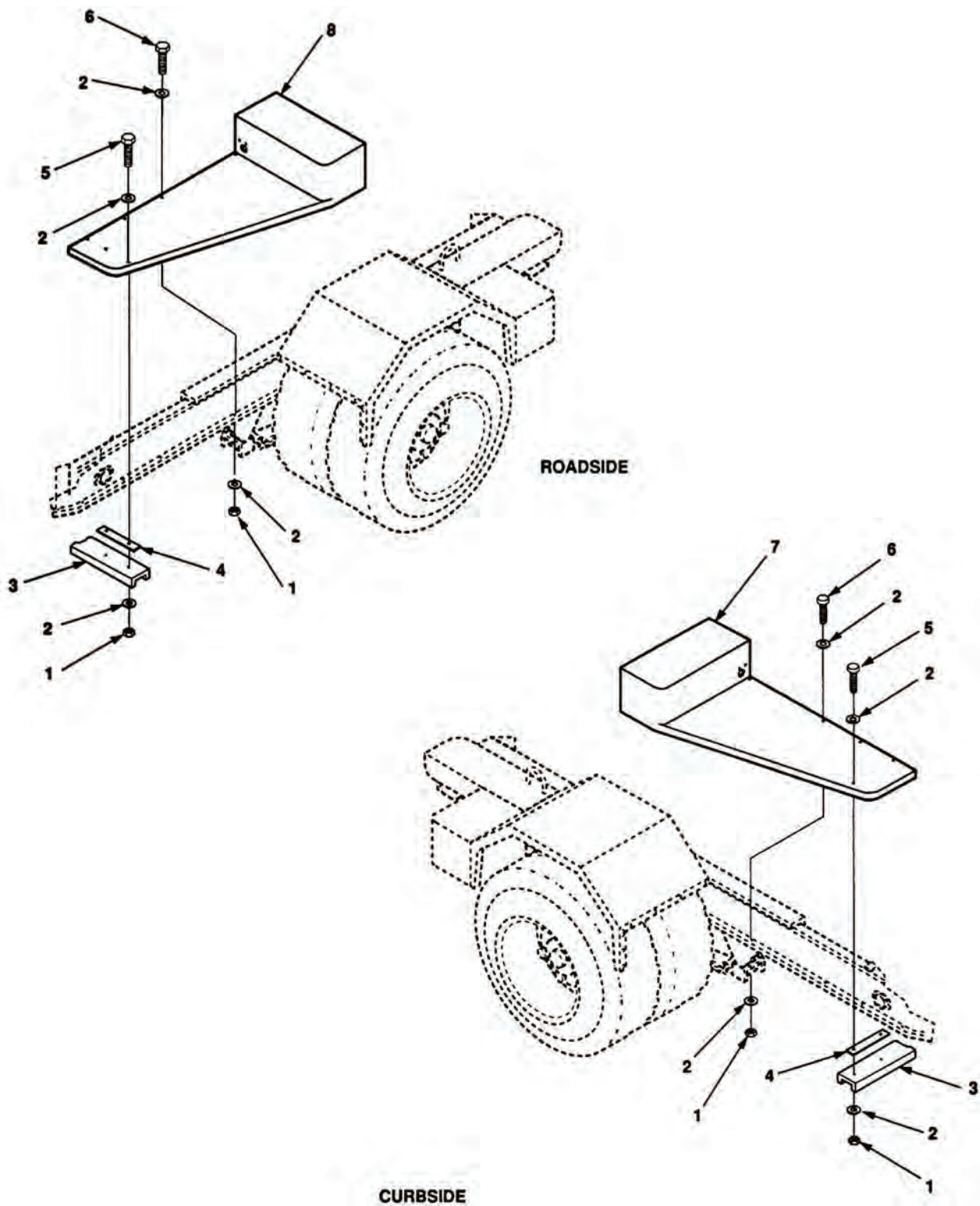


Figure 40. Front Steps.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 TRAILER ASSEMBLY						
1	PAFZZ	5306-00-226-4829	80204	B1821BH031C125N	BOLT, MACHINE UOC: YFC, 44J, EWA, 44K	6
2	PAFZZ	5310-00-044-6477	96906	MS51412-25	WASHER, FLAT UOC: YFC, 44J, EWA, 44K	24
3	PAFZZ	5306-00-226-4832	80204	B1821BH031C175N	BOLT, MACHINE UOC: YFC, 44J, EWA, 44K	6
4	PAFZZ	5365-00-944-2692	97403	13214E1267-1	SPACER, PLATE UOC: YFC, 44J, EWA, 44K	2
5	PAFZZ	5310-00-984-3806	81349	M45913/1-5CG5C	. NUT, SELF-LOCKING, HEX UOC: YFC, 44J, EWA, 44K	12
6	XDFZZ		97403	13214E1268	CHANNEL UOC: YFC, 44J, EWA, 44K	1
7	PAFFF	2330-01-150-9864	97403	13214E1461	STEP, FRONT, CURBSIDE UOC: YFC, 44J, EWA, 44K	--
8	PAFFF	2510-01-196-4682	97403	13214E1462	STEP, FRONT, CURBSIDE UOC: YFC, 44J, EWA, 44K	--

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 04 FRONT PLATFORM

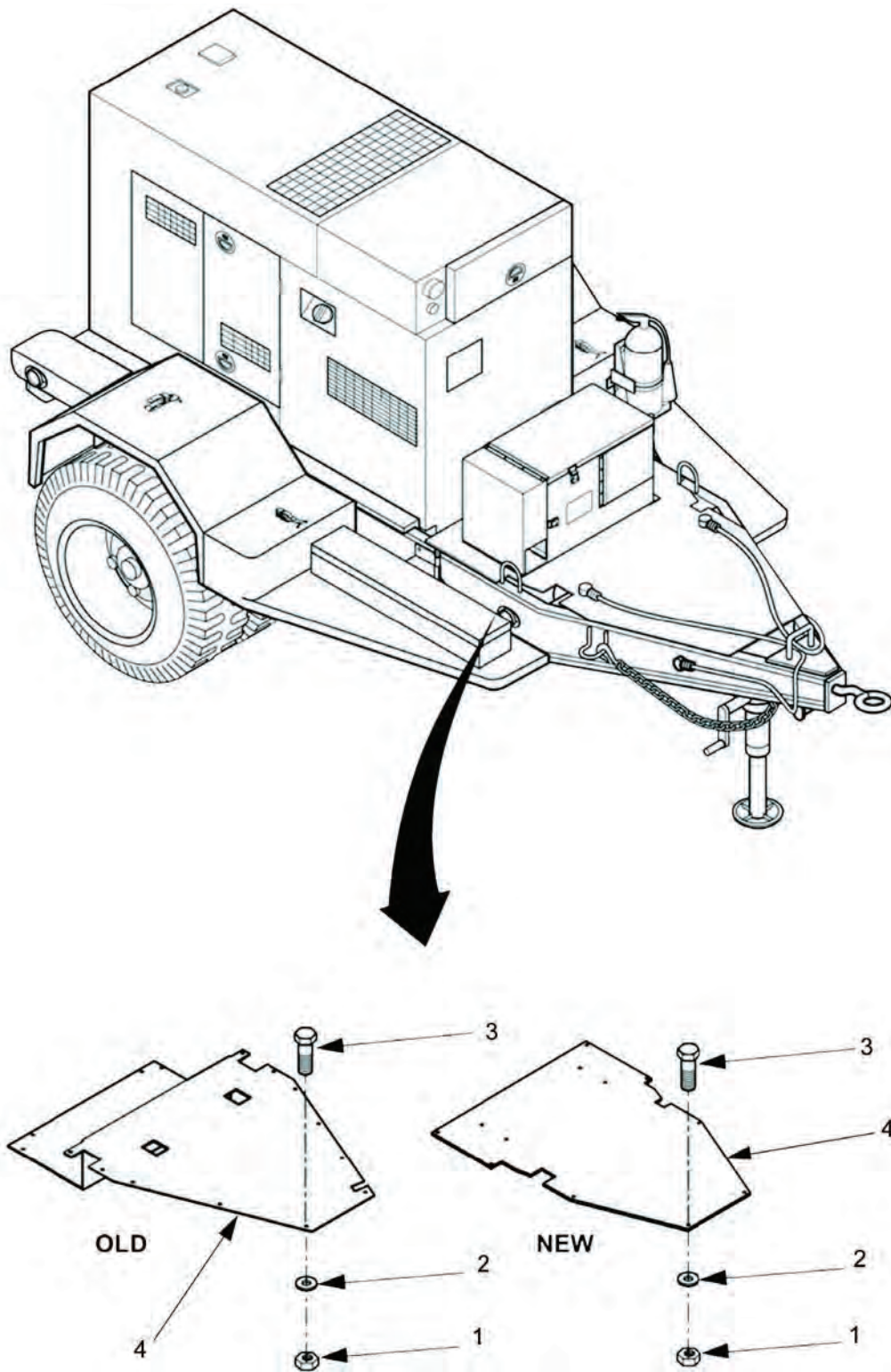


Figure 41. Front Platform.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 FRONT PLATFORM						
FIG. 41 FRONT PLATFORM						
1	PAFZZ	5306-00-226-4829	80204	B1821BH031C125N	BOLT, MACHINE UOC: YFC, 44J, EWA, 44K	15
1	PAFZZ	5306-00-226-4829	80204	B1821BH031C125N	BOLT, MACHINE UOC: YFC, 44J, EWA, 44K	8
2	PAFZZ	5310-00-044-6477	96906	MS51412-25	WASHER, FLAT UOC: YFC, 44J, EWA, 44K	15
2	PAFZZ	5310-00-044-6477	96906	MS51412-25	WASHER, FLAT UOC: YFC, 44J, EWA, 44K	8
3	PAFZZ	5310-00-984-3806	81349	M45913/5CG5C	NUT, SELF-LOCKING, HEX UOC: YFC, 44J, EWA, 44K	15
3	PAFZZ	5310-00-984-3806	81349	M45913/5CG5C	NUT, SELF-LOCKING, HEX UOC: YFC, 44J, EWA, 44K	8
4	XDFFF		97403	13229E6108	PLATFORM, FRONT UOC: YFC, 44J, EWA, 44K	1
4	XDFFF		97403	13229E6108	PLATFORM, FRONT UOC: YFC, 44J, EWA, 44K	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 04 TRAILER ASSEMBLY

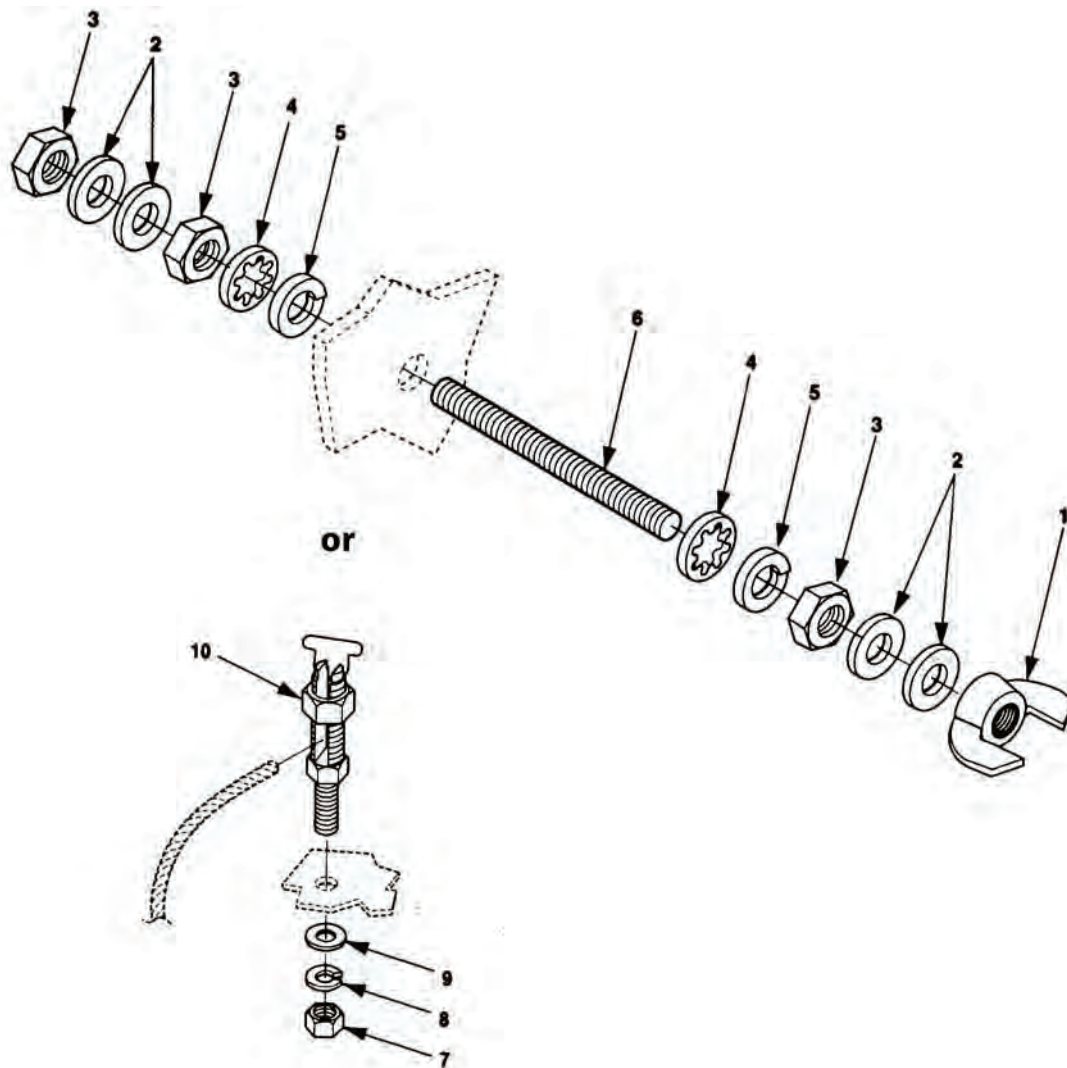


Figure 42. Ground Stud.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 TRAILER ASSEMBLY						
1	PAFZZ	5310-00-584-7995	96906	MS16203-27	NUT, PLAIN, HEXAGON UOC: YFC, 44J, EWA, 44K	3
2	PAFZZ	5310-00-187-2413	80205	AN961-616T	WASHER, FLAT UOC: YFC, 44J, EWA, 44K	4
3	PAFZZ	5310-00-184-8971	80205	MS35338-103	WASHER, LOCK UOC: YFC, 44J, EWA, 44K	2
4	PAFZZ	5310-00-022-8847	80205	MS35333-110	WASHER, LOCK UOC: YFC, 44J, EWA, 44K	2
5	PAFZZ	5307-00-227-1741	97403	13214E1223	STUD, CONTINUOUS THR UOC: YFC, 44J, EWA, 44K	1
6	PAFZZ	5310-01-078-5996	96906	MS35425-75	NUT, PLAIN, WING UOC: YFC, 44J, EWA, 44K	1
7	PAFZZ	5940-00-021-3321	96906	MS39347-2	TERMINAL, STUD UOC: YFC, 44J, EWA, 44K	1
8	PAFZZ	5320-00-582-5677	80205	MS15795-810	WASHER, FLAT UOC: YFC, 44J, EWA, 44K	1
9	PAFZZ	5310-00-883-9417	80205	MS35338-158	WASHER, LOCK UOC: YFC, 44J, EWA, 44K	1
10	PAFZZ	5310-00-989-0908	96906	MS35691-3	NUT, PLAIN, HEXAGON UOC: YFC, 44J, EWA, 44K	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

GROUP 04 TRAILER ASSEMBLY

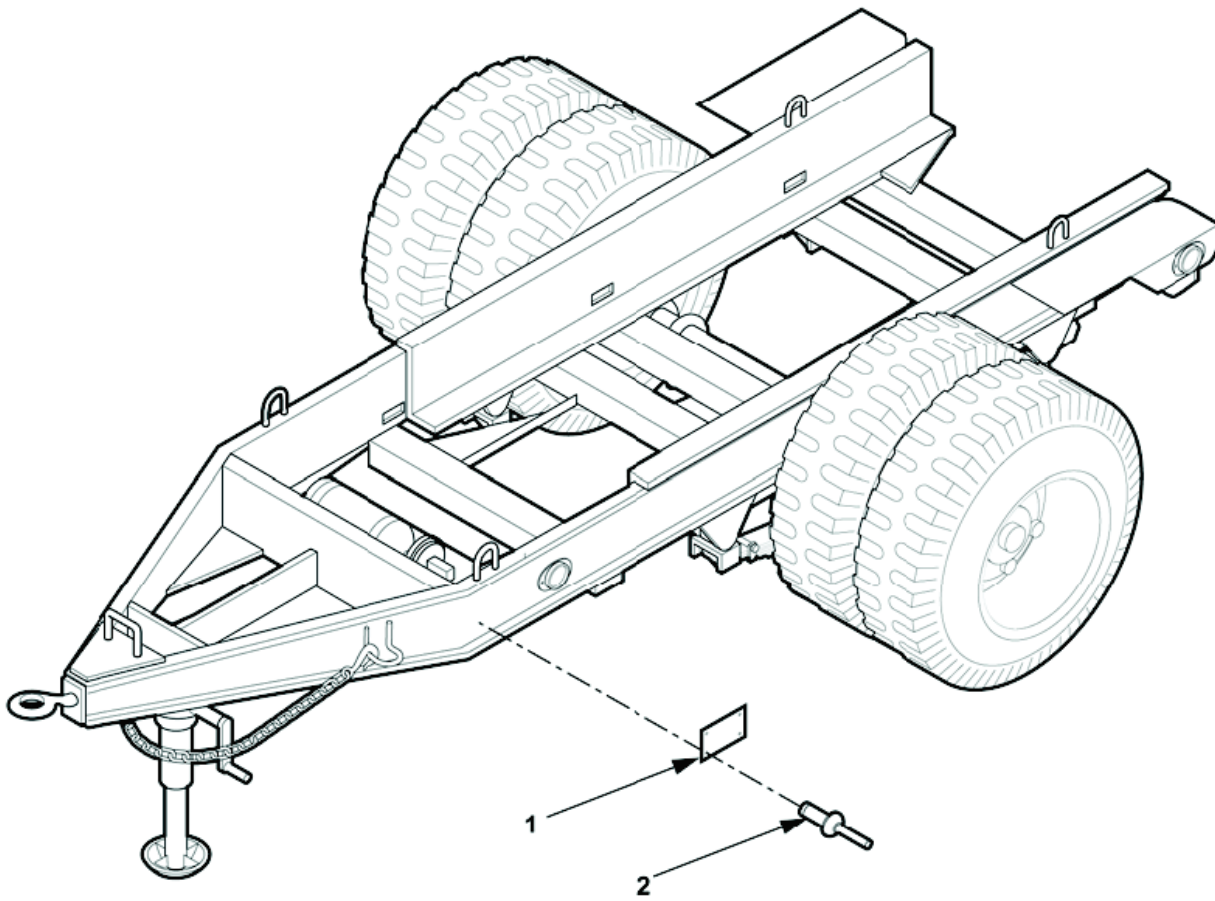


Figure 43. Trailer Chassis.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
1	XBZZ		97403	13230E6797	GROUP 04 TRAILER ASSEMBLY PLATE, IDENTIFICATION UOC: YFC, 44J, EWA, 44K	1
2	PAZZ	5320-00-957-2507	80205	MS20604AD6W4	RIVET, BLIND UOC: YFC, 44J, EWA, 44K	4
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

BULK ITEMS

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP BULK ITEMS						
1	PAFZZ		71102	022756	CABLE UOC: YHJ, 44F.....	V
2	PAFZZ	9505-01-496-6526	81346	ASTM A313 TY302 CONDB ROND 0.105	WIRE, NONELECTRICAL UOC: YHJ, 44F.....	V
3	MFFZZ	4020-00-928-3438	88001	C1832	ROPE, FIBROUS UOC: YHJ, 44F.....	V
4	PAFZZ	4720-01-337-5130	01276	FC173-5	HOSE, NONMETALLIC UOC: YFC, 44J, EWA, 44K	V
5	PAFZZ	5325-00-074-3301	96906	MS21266-2N	GROMMET, NONMETALLIC PLASTIC EDGE UOC: YHJ	V
6	PAFZZ	6145-01-218-8221	81343	M22759/16-02-9	WIRE, ELECTRICAL UOC: YHJ, 44F.....	V
7	PAFZZ	6145-01-131-2404	81343	M22759/16-4-9	WIRE, ELECTRICAL UOC: YHJ, 44F.....	V
8	PAFZZ	6145-01-044-8799	81343	M22759/16-16-9	WIRE, ELECTRICAL UOC: YHJ, 44F.....	V
9	PAFZZ	6145-01-060-7863	81343	M22759/16-18-9	WIRE, ELECTRICAL UOC: YHJ, 44F.....	V
10	PAFZZ	6145-01-042-4621	81343	M22759/16-20-9	WIRE, ELECTRICAL UOC: YHJ, 44F.....	V
11	PAFZZ	5970-00-787-2325	81343	M23053/5-104-4	INSULATION SLEEVING UOC: YHJ, 44F.....	V
12	PAFZZ	5970-00-088-2975	81343	M23053/5-104-9	INSULATION SLEEVING UOC: YHJ, 44F.....	V
13	PAFZZ	5970-00-052-4877	81343	M23053/5-105-4	INSULATION SLEEVING UOC: YHJ, 44F.....	V
14	PAFZZ	5970-00-082-3942	81343	M23053/5-105-9	INSULATION SLEEVING UOC: YHJ, 44F.....	V
15	PAFZZ	5970-00-740-2971	81343	M23053/5-107-9	INSULATION SLEEVING UOC: YHJ, 44F.....	V
16	PAFZZ	5970-00-089-6041	81343	M23053/5-108-4	INSULATION SLEEVING UOC: YHJ, 44F.....	V
17	PAFZZ	5970-00-057-3545	81343	M23053/5-109-4	INSULATION SLEEVING UOC: YHJ, 44F.....	V
18	PAFZZ	5970-00-959-6336	81343	M23053/5-110-4	INSULATION SLEEVING UOC: YHJ, 44F.....	V
19	PAFZZ	5970-00-822-2775	81343	M23053/5-110-9	INSULATION SLEEVING UOC: YHJ, 44F.....	V
20	PAFZZ	5970-00-781-6826	81343	M23053/5-113-0	INSULATION SLEEVING UOC: YHJ, 44F.....	V
21	PAFZZ	5970-00-105-3075	81349	M24768/2-S-7	INSULATION SHEET, ELEC- TRICAL UOC: YHJ	V
22	PAFZZ	6145-00-578-6600	81343	M5086/2-02-9	WIRE, ELECTRICAL UOC: YHJ, 44F.....	V

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
23	PAFZZ	6145-00-578-6595	81343	M5086/2-4-9	WIRE, ELECTRICAL UOC: YHJ, 44F.....	V
24	PAFZZ	4720-01-386-4210	81349	M6000-F-00200	HOSE, NONMETALLIC UOC: YFC, 44J, EWA, 44K	V
25	PAFZZ	6145-01-226-9164	58536	AA59551-C06B1B	WIRE, ELECTRICAL UOC: YFC, 44J, EWA, 44K	V
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

SPECIAL TOOLS LIST

There are no special tools for this TM.

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

NSN INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5320-00-005-6279	8	15		28	1
5940-00-021-3321	35	5	5340-00-066-1235	32	1
	42	7	5305-00-071-1318	9	20
5310-00-022-8847	42	4		21	1
5940-00-025-1821	19	2	5305-00-071-1323	1	10
	20	8		2	10
	21	16	5305-00-071-1324	18	12
	25	2	5975-00-074-2072	8	25
	29	2		9	14
5310-00-042-4229	9	32		14	2
	18	17		23	2
5310-00-043-0520	17	4		24	3
	20	1	5325-00-074-3301	43	5
5310-00-044-6477	36	2	5340-00-078-3615	12	7
	37	5		13	4
	38	2	5970-00-082-3942	43	14
	38	6	5310-00-087-4652	8	1
	39	2		9	24
	40	2	5310-00-088-1251	34	1
	41	2	5970-00-088-2975	43	12
	41	2A	5305-00-088-9671	12	6
5310-00-045-3296	1	8		13	10
	2	8	5970-00-089-6041	43	16
5305-00-052-1457	26	6	5970-00-105-3075	43	21
5970-00-052-4877	43	13	5930-00-105-5331	12	9
5305-00-054-5652	8	22		13	8
5305-00-054-6670	12	1	5940-00-113-8190	32	18
5305-00-054-6671	8	7		33	2
	13	11	5940-00-113-9835	20	7
5310-00-056-3395	31	1		21	17
5970-00-057-3545	43	17		25	5
5305-00-059-3660	27	3		29	5

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5940-00-115-2678	10	9		17	3
	11	9		18	8
5320-00-117-7288	9	17	5310-00-250-9477	26	1
5120-00-138-3790	11	10	5310-00-252-8748	1	7
5305-00-143-3304	17	10		2	7
5940-00-143-4771	24	1	5310-00-269-4040	5	3
5940-00-143-4773	24	7	4210-00-270-4512	33	1
5940-00-143-4774	12	10	5940-00-271-9504	32	16
5940-00-143-4780	22	3	4820-00-277-1765	34	6
	30	3	5940-00-283-5280	23	3
5940-00-143-4793	23	5	5340-00-291-3484	26	5
5310-00-184-8971	42	3	5975-00-296-5324	32	22
4710-00-185-6948	32	7	5935-00-342-3736	17	16
5999-00-186-3912	32	19	5999-00-344-1909	7	7
5310-00-187-2413	42	2	5999-00-346-8787	7	6
5120-00-203-4656	32	14	5310-00-400-5503	9	29
5310-00-208-9255	18	4		10	1
5310-00-209-1239	32	11		11	1
5310-00-209-3987	17	2		20	16
	18	6		21	4
5310-00-213-4960	17	9	5330-00-402-5125	32	8
5306-00-226-4827	38	7	5310-00-408-2561	32	4
5306-00-226-4829	36	1	5310-00-421-9608	17	8
	37	4	4730-00-441-8700	32	10
	38	1	5935-00-506-6540	14	6
	39	5	5940-00-557-4338	21	14
	40	1	5940-00-557-4341	19	3
	41	1		20	6
	41	1A	5310-00-566-9502	32	5
5306-00-226-4832	40	3	5310-00-570-0386	12	14
5307-00-227-1741	42	5	5310-00-571-5090	32	9
5940-00-230-0515	22	2	6145-00-578-6595	43	23
	30	2	6145-00-578-6600	43	22
5340-00-234-8422	37	1	5320-00-582-3304	8	18
5940-00-237-2703	9	3	5320-00-582-3305	8	13
	18	13	5320-00-582-5677	42	8
5940-00-237-2704	9	1	5310-00-584-7995	9	33

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
	42	1		16	1
4710-00-597-8731	32	6	3740-00-902-1481	32	2
5310-00-637-9541	9	26	4730-00-908-3194	33	4
5320-00-680-8779	37	2	5975-00-924-9927	32	20
5305-00-685-3511	10	4	4020-00-928-3438	43	3
	11	4	5310-00-933-8118	8	21
	20	18	5310-00-933-8119	8	9
5305-00-688-2111	8	3		12	3
	9	27		13	12
	31	3	5310-00-933-8120	27	2
5305-00-724-7221	5	1		28	2
5970-00-740-2971	43	15	5310-00-933-8121	9	28
5320-00-753-3830	37	3		10	2
5970-00-781-6826	43	20		11	2
5970-00-787-2325	43	11		17	5
5975-00-794-2523	32	21		20	17
5935-00-801-6622	23	8		21	3
5310-00-809-5997	34	8		26	2
5310-00-809-9703	33	6	5310-00-934-9727	17	1
4730-00-812-1333	34	4		18	7
5940-00-813-0698	14	3	5310-00-934-9748	8	20
	24	4	5310-00-934-9760	27	1
5970-00-822-2775	43	19	6210-00-941-6690	16	2
5305-00-841-2681	32	12	5365-00-944-2692	40	4
4730-00-842-2201	34	11	5305-00-954-9550	9	31
5935-00-852-9611	22	6	5320-00-954-9568	9	12
5940-00-853-3987	10	7	5320-00-956-7355	9	34
	11	7	5320-00-957-2507	1	4
5975-00-878-3791	32	15		2	4
5310-00-880-5978	8	8		3	4
	12	2		4	4
	13	13		43	2
5310-00-883-9417	42	9	5970-00-959-6336	43	18
6210-00-900-9423	9	7	5340-00-975-2126	37	7
	12	17	5310-00-982-6814	12	5
	13	1		13	5
	15	1	5310-00-984-3806	36	3

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
	37	6		40	8
	38	3	2510-01-213-3242	35	10
	39	1		38	9
	40	5	5999-01-217-4144	19	8
	41	3		20	13
	41	3A		21	7
5305-00-988-1727	34	3	6145-01-218-8221	43	6
5310-00-989-0908	42	10	5310-01-219-3472	9	37
5365-00-989-3304	39	6	5342-01-226-5766	39	4
5310-00-989-5945	18	18	6145-01-226-9164	43	25
5320-00-991-7484	9	36	5310-01-228-0597	20	2
5305-00-993-2457	17	6	6210-01-230-1851	15	4
	20	3		16	4
5120-01-013-1676	32	13	6240-01-232-8753	15	3
4730-01-020-5607	34	7	5310-01-242-2679	5	2
5935-01-035-5139	30	6	6150-01-261-9826	12	13
6145-01-042-4621	43	10		13	7
6145-01-044-8799	43	8	6115-01-274-7390	3	2
6145-01-060-7863	43	9	6115-01-274-7395	3	3
5310-01-078-5996	42	6	5340-01-277-5068	10	6
5935-01-087-0780	20	14		11	6
	21	6	6115-01-280-0063	1	1
5935-01-091-9166	7	1		2	1
5935-01-101-3418	19	9	5340-01-295-4896	8	30
5310-01-103-6042	20	4		9	13
6145-01-131-2104	43	7	4730-01-297-0185	34	5
5310-01-141-6672	8	23	5310-01-304-8733	9	21
5935-01-147-9446	21	5		10	3
2330-01-150-9864	35	7		11	3
	40	7		17	7
5310-01-164-4694	8	28		20	19
5999-01-167-0838	7	5		21	2
5935-01-172-1004	20	15		26	3
5935-01-175-8419	8	24		34	2
2510-01-195-4273	35	1	6115-01-317-2134	1	2
	38	8	4720-01-337-5130	43	4
2510-01-196-4682	35	11	5310-01-352-9599	27	4

STOCK NUMBER	FIG.	ITEM
6240-01-355-4422	16	3
5120-01-368-1646	10	5
	11	5
5310-01-385-7083	9	25
	31	2
5310-01-386-0481	1	9
	2	9
4730-01-386-1770	34	9
4720-01-386-4210	43	24
6110-01-388-0318	9	11
	27	5
5930-01-391-1529	6	2
6115-01-392-0296	3	1
	4	1
5340-01-397-6096	8	6
	9	39
2540-01-417-8036	35	8
	37	8
6145-01-440-5706	6	1
5940-01-458-9497	24	8
6115-01-462-0291	4	2
6115-01-462-0292	4	3
5310-01-471-0640	18	3
	28	3
6115-01-471-1508	2	2
5310-01-478-5703	8	4
9505-01-496-6526	43	2
4210-01-535-1439	38	5
5940-01-552-4612	25	15

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

P/N INDEX

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
	8	14		16	1
	13	3	13214E1461	35	7
	20	5		40	7
	23	1	13214E1462	35	11
13200E6361	32	9		40	8
13200E6363	32	2	13217E3858-16	20	7
13211E7541	32	1		21	17
13211E7542	32	6		25	5
13211E7543	32	7		29	5
13211E7544	32	5	13217E3858-4	32	18
13211E7546	32	8		33	2
13211E7547	32	4	13217E3858-6	21	14
13211E7548	32	3	13218E0320-291	26	1
13214E1223	42	5	13218E0320-91	9	29
13214E1259	35	2		10	1
	36	4		11	1
13214E1261	35	9		20	16
	36	5		21	4
13214E1263	35	1	13218E0493-2769PIIC	27	3
	38	8		28	1
13214E1264	35	10	13218E0493-2812PIIC	9	20
	38	9		21	1
13214E1267-1	40	4	13218E5091	1	1
13214E1268	40	6		2	1
13214E1269	39	4	13226E0107-11	23	3
13214E1270	39	3	13226E0107-13	22	3
13214E1271	39	7		30	3
13214E1272	39	6	13226E0107-14	22	2
13214E1391	9	7		30	2
	12	17	13226E0107-16	23	5
	13	1	13226E0107-3	14	3
	15	1		24	4

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
13226E0107-8	24	7		11	8
13226E7741	32	13	13229E5795-3-67	17	12
13229E0107-5	24	1	13229E5795-3-68	17	13
13229E5666-10	1	6	13229E5795-3-69	17	14
13229E5666-21	3	5	13229E5795-3-70	17	15
13229E5666-22	3	6	13229E5796	9	38
13229E5666-25	4	5	13229E5796-3	8	26
13229E5666-26	4	6	13229E5796-3-15	8	29
13229E5666-29	2	6	13229E5800-2	9	10
13229E5666-30	2	5		13	2
13229E5666-37	3	5		24	9
13229E5666-38	3	6	13229E5800-2-10	24	2
13229E5666-43	1	5	13229E5800-2-2	24	5
13229E5666-44	1	6	13229E5800-2-6	24	6
13229E5666-9	1	5	13229E5801	9	15
13229E5706-23	25	15	13229E5801-3	8	12
13229E5706-4	24	8	13229E5802-2	9	6
13229E5710-ELE	1	3		12	4
13229E5728-2	8	11	13229E5802-2-10	12	11
13229E5741	6	1	13229E5802-2-4	12	8
	7	-	13229E5804	8	10
13229E5741-2	7	4		9	18
13229E5741-3	7	2	13229E5805	12	12
13229E5741-4	7	3		13	9
13229E5755	1	2	13229E5806-1	9	9
13229E5788-3	20	20		22	1
	21	8	13229E5806-1-2	22	5
13229E5792-3	8	19	13229E5806-1-5	22	4
	9	40	13229E5806-2	9	4
13229E5793-1	9	19		30	1
	12	15	13229E5806-2-2	30	5
13229E5793-2	9	30	13229E5806-2-5	30	4
	12	16	13229E5807-3	17	11
13229E5795-3	6	2		18	1
	6	2	13229E5809-3	19	1
	8	5	13229E5809-3-17	19	5
13229E5795-3-65	10	8	13229E5809-3-18	19	4

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
13229E5809-3-5	19	7		14	1
13229E5809-3-8	19	6	13229E5837-2	14	5
13229E5809-4	9	8	13229E5837-3	14	4
	21	18	13229E6108	35	6
13229E5809-4-17	21	10		41	4
13229E5809-4-18	21	13		41	4A
13229E5809-4-5	21	12	13229E7946	35	8
13229E5809-4-8	21	11		37	8
	21	15	13229E9632	3	1
13229E5810	9	2		4	1
13229E5810-17	25	8	13229E9632A	35	4
13229E5810-18	25	9	13229E9633	35	3
13229E5810-19	25	10	13230E4592	31	4
13229E5810-20	25	11	13230E4599-2	18	5
13229E5810-23	25	13	13230E6380-4A	32	23
13229E5810-7	25	1	13230E6381-2A	32	24
13229E5810-8	25	6	13230E6382-4	38	4
13229E5810-9	25	7	13230E6382-6	8	1
13229E5811	9	5		9	24
13229E5811-11	29	1	13230E6516	13	6
13229E5811-11-3	29	4	13230E6528	18	2
13229E5811-12	29	6	13230E6529	9	22
13229E5811-12-3	29	7	13230E6744-138	27	2
13229E5811-13	29	8		28	2
13229E5811-13-3	29	9	13230E6744-139	9	28
13229E5811-14	29	10		10	2
13229E5811-14-3	29	11		11	2
13229E5811-15	29	12		17	5
13229E5811-15-3	29	13		20	17
13229E5815	9	23		21	3
	20	21		26	2
	21	9	13230E6744-46	8	4
13229E5816-2	26	4	13230E6797	43	1
13229E5834	8	17	13230E6823-3	9	35
	9	16	13230E6831	33	1
13229E5835	8	16	13230E6851	2	2
13229E5837	12	18	13230E6854-ELE	2	3

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
13230E6858	38	5		11	5
181-0931-001	15	2	88-806	3	2
181-0937-003	16	2	88-816	3	3
181-8836-09-553	15	4	96-806	4	2
	16	4	96-816	4	3
2-57-1735-07	8	6	A-A-1293	32	14
	9	39	A-A-55624-68	17	10
69-539-2	34	4	A-A-55804	32	22
6S6AC130V	16	3	A-A-55804-3B	32	15
70-801074	32	19	AA59125/28-TBJA	12	13
72-2135	10	6		13	7
	11	6	AD64H	9	34
88-20018-1	8	25	AN960-C4	8	23
	9	14	AN961-616	42	2
	14	2	ASTM A313	43	2
	23	2	B1821BH031C100N	38	7
	24	3	B1821BH031C125N	36	1
88-20033-11C	18	3		37	4
	28	3		38	1
88-20033-18C	9	21		39	5
	10	3		40	1
	11	3		41	1
	17	7		41	1A
	20	19	B1821BH031C175N	40	3
	21	2	B1821BH038C138N	8	3
	26	3		9	27
	34	2		31	3
88-20033-25A	36	2	B1821BH063C175N	5	1
	37	5	C1832	43	3
	38	2	CBA-70	32	16
	38	6	CLE-403002	11	10
	39	2	CT350E-120E4	9	11
	40	2		27	5
	41	2	D-753-34	23	4
	41	2A	FC173-5	43	4
88-20033-314A	8	2	G9B (GR)	15	3
88-21148	10	5	GRB58	32	20

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
GRC 58	32	21	M45938/1-13C	12	14
J787-34	19	2	M5086/2-02-9	20	12
	20	8		43	22
	21	16	M5086/2-4-9	20	11
	25	2		43	23
	29	2	M6000-F-00200	33	5
K3-0334-07	8	30		43	24
	9	13	MS124696	26	5
M22759/16-02-9	25	4	MS15795-807	8	8
	25	12		12	2
	25	14		13	13
	43	6	MS15795-810	42	8
M22759/16-16-9	43	8	MS15795-857	27	4
M22759/16-18-9	23	7	MS16203-27	9	33
	43	9		42	1
M22759/16-20-9	43	10	MS18015-1	37	7
M22759/16-4-9	43	7	MS20426AD6-8	9	17
M23053/5-104-4	43	11	MS20427-4C6	37	2
M23053/5-104-9	43	12	MS20470AD4-4-5	8	15
M23053/5-105-4	23	9	MS20600AD4W2	8	18
	43	13	MS20600AD4W3	8	13
M23053/5-105-9	43	14	MS20604AD3W2	9	36
M23053/5-107-9	43	15	MS20604AD4W3	9	12
M23053/5-108-4	20	10	MS20604AD6W4	1	4
	23	6		2	4
	43	16		3	4
M23053/5-109-4	25	3		4	4
	29	3		43	2
	43	17	MS20613-4P5	37	3
M23053/5-110-4	20	9	MS20659-111	10	9
	43	18		11	9
M23053/5-110-9	43	19	MS21044C08	12	5
M23053/5-113-0	43	20		13	5
M24768/2-S-7	43	21	MS21044C3	18	4
M39029/49-332	7	6	MS21266-2N	43	5
M39029/49-335	7	7	MS21322-33	12	7
M45913/1-10CG5C	5	3		13	4

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MS24519-9	33	6	MS35338-103	42	3
MS24587-5	34	11	MS35338-135	8	21
MS24693-C52	12	6	MS35338-137	8	9
	13	10		12	3
MS25036-123	19	3		13	12
	20	6	MS35338-158	42	9
MS25036-153	12	10	MS35338-43	1	8
MS25043-18DA	8	24		2	8
MS27130-A93	8	28	MS35338-46	9	26
MS27130-A96	8	27	MS35425-75	42	6
MS27130-CR26	9	37	MS35649-204	27	1
MS27183-17	34	8	MS35649-2382	31	1
MS27407-3	12	9	MS35649-244	8	20
	13	8	MS35650-3252	17	4
MS27969-4	37	1		20	1
MS3100R20-27S	23	8	MS35650-3314	1	7
MS3102R18-11P	22	6		2	7
MS3106R20-27P	14	6	MS35691-3	42	10
MS3348-4/0-2/0L	19	8	MS35691-35	18	18
	20	13	MS35691-59	17	1
	21	7		18	7
MS3348-6-8L	7	5	MS35842-11	33	4
MS3456W18-11S	30	6	MS35930-2	34	6
MS35206-283	34	3	MS39347-2	35	5
MS35207-284	17	6		42	7
	20	3	MS39347-5	9	3
MS35214-101	9	31		18	13
MS35308-3	26	6	MS39347-5A	18	14
MS35308-306	10	4	MS39347-5B	18	15
	11	4	MS39347-5C	18	16
	20	18	MS39347-6	9	1
MS35333-110	42	4		17	3
MS35333-113	9	32		18	8
	18	17	MS39347-6A	17	17
MS35333-116	17	2		18	9
	18	6	MS39347-6B	17	18
MS35335-60	32	11		18	10

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MS39347-6C	17	19	MS90563-7C	20	15
	18	11	MS90564-11C	17	16
MS51412-11	5	2	MS90564-7C	21	5
MS51412-21	1	9	P1401	10	7
	2	9		11	7
MS51412-27	9	25	PL-19-3	32	12
	31	2	QQW343C06B1B	32	17
MS51412-4	20	4		33	3
MS51415-5	20	2		43	25
MS51500A8-4	32	10	END OF WORK PACKAGE		
MS51519B5Z/A5Z	34	5			
MS51520A5Z	34	9			
MS51858-4	17	8			
MS51859-4	17	9			
MS51860-54	34	7			
MS51922-1	34	1			
MS51922-9	36	3			
	37	6			
	38	3			
	39	1			
	40	5			
	41	3			
	41	3A			
MS51957-18	8	22			
MS51957-45	12	1			
MS51957-46	8	7			
	13	11			
MS51960-66	1	10			
	2	10			
MS51960-67	18	12			
MS52103-2	34	12			
	34	12			
MS52103A050440R	34	10			
MS90555C52413S	19	9			
MS90557C52413S	7	1			
MS90558C52413P	20	14			
	21	6			

CHAPTER 8

OPERATOR AND FIELD SUPPORTING INFORMATION

FOR

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER

UNITS AND POWER PLANTS

CHAPTER 8
SUPPORTING INFORMATION

WORK PACKAGE INDEX

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OPERATOR AND FIELD MAINTENANCE**60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT****REFERENCES**

SCOPE

This work package lists all forms, regulations, pamphlets, specifications, standards, technical manuals, technical bulletins, lubrication orders, field manuals, and miscellaneous publications referenced in this TM.

FORMS

DA Form 314	Preventive Maintenance Schedule and Record
DA Form 2028	Recommended Changes to Publications and Blank Forms
DA Form 2062	Hand Receipt
DA Form 2258	Depreservation Guide for Vehicles and Equipment
DA Form 2404	Equipment Inspection and Maintenance Worksheet
DA Form 2407	Maintenance Request
DA Form 2408	Equipment Log Assembly (Records)
DA Form 2408-9	Equipment Control Record
DA Form 2408-20	Oil Analysis Log
DD Form 361	Transportation Discrepancy Report
DD Form 518	Accident Identification Card
DD Form 1397	Processing and Deprocessing Record for Shipment, Storage, and Issue of Vehicles and Spare Engines
DA Form 5988-E	Equipment Inspection and Maintenance Worksheet
SF Form 364	Report of Discrepancy
SF Form 368	Product Quality Deficiency Report
SF Form 91	Motor Vehicle Accident Report

ARMY REGULATIONS

AR 310-25	Dictionary of United States Army Terms
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DEPARTMENT OF THE ARMY PAMPHLETS

DA PAM 750-8	The Army Maintenance Management System (TAMMS) Users Manual
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MILITARY SPECIFICATIONS

MIL-C-22992E	Connectors, Plugs, and Receptacles, Electrical, Waterproof, Quick Disconnect, Heavy Duty Type, General Specification for
MIL-C-3432	Cables (Power and Special Purpose) and Wire, Electrical (300 and 600 Volts)
MIL-E-45782C	Electrical Wiring, Procedures for
MIL-I-23053/5	Insulation Sleeving, Electrical, Heat Shrinkable, Polyolefin, Flexible, Crosslinked
MIL-W-5086/2(C)1	Wire, Electrical, Polyvinyl Chloride Insulated; PVC Glass Nylon, Tin Coated Copper Conductor, 600 Volt, 105 °C

COMMERCIAL ITEM DESCRIPTIONS

A-A-1051	Paperboard, Wrapping and Cushioning
A-A-55057	Panels, Wood/Wood Based, Construction and Decorative
ASME-Y14.38M	Abbreviations for Use on Drawings, and in Specifications, Standards and Technical Documents
ASTM-D3953-87	Strapping, Steel, and Seals
ASTM-D5486/D5486M	Standard Specification for Pressure Sensitive Tape for Packing, Box Closure, and Sealing
ASTM-D6251 (PPP-B-601)	Boxes, Wood, Cleated Plywood
PPP-G-2919	Generator Sets, Mobile Electric Power, Packaging of

MILITARY STANDARDS

J-STD-004	Requirements for Soldering Fluxes
J-STD-005	Requirements for Soldering Pastes
J-STD-006	Requirements for Electronic Grade Solder Alloys and Fluxed and Non-Fluxed Solid Solders for Electronic Soldering Applications
MIL-HDBK-454A	General Guidelines for Electronic Equipment
MIL-HDBK-729	Corrosion and Corrosion Prevention Metals
MIL-STD-129P	Marking for Shipment and Storage
MIL-STD-130L	Identification Marking of U.S. Military Property
MIL-STD-2000	Standard Requirements for Soldered Electrical and Electronic Assemblies
MIL-STD-2073-1	Preservation, Methods of

TECHNICAL MANUALS

TM 750-244-3	Procedures for Destruction of Equipment to Prevent Enemy Use (Mobility Equipment Command)
TM 9-2330-205-14&P	Operator' Unit, Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools List), TRAILER, CHASSIS: 2 ½-Ton, 2-wheel M200A1 (NSN 2330-00-331-2307)
TM 9-2610-200-24	Organizational, Direct Support, and General Support Maintenance. Care, Maintenance and Repair of Pneumatic Tires and Inner Tubes
TM 9-2815-256-24	Unit, Direct Support and General Support Maintenance Instructions, Diesel Engine, Model No. 6059T, 6 Cylinder, 5.9 Liter, NSN: 2815-01-350-2209
TM 9-2815-256-24P	Unit, Direct Support and General Support Maintenance Manual, Repair Parts and Special Tools List: Diesel Engine, NSN 2815-01-350-2209, Model No. 6059T, 6 Cylinder, 4 Cycle, Turbocharged
TM 9-2815-260-24	Unit, Direct Support and General Support Maintenance Manual, Diesel Engine, Model No. 6068TF151, 6 Cylinder, 6.8 Liter, NSN: 2815-01-462-3596
TM 9-2815-260-24P	Unit, Direct Support and General Support Maintenance Manual, Repair Parts and Special Tools List: Diesel Engine, NSN 2815-01-462-3596, Model No. 6068TF151, 6 Cylinder, 6.8 Liter
TM 9-6115-645-10	Operator's Manual, Generator Set, Skid-Mounted, Tactical Quiet, 60 kW, 50/60 and 400 Hz, MEP-806A (50/60 Hz) (NSN 6115-01-274-7390), MEP-816A (400 Hz) (NSN 6115-01-274-7395)

TM 9-6115-645-24	Unit, Direct Support and General Support Maintenance Manual for Generator Set, Skid-Mounted, Tactical Quiet, 60 kW, 50/60 and 400 Hz, MEP-806A (50/60 Hz) (NSN 6115-01-274-7390), MEP-816A (400 Hz) (NSN 6115-01-274-7395)
TM 9-6115-645-24P	Unit, Direct Support and General Support Maintenance Manual for Repair Parts and Special Tools List: Generator Set, Skid-Mounted, Tactical Quiet, 60 kW, 50/60 and 400 Hz, MEP-806A (50/60 Hz) (NSN 6115-01-274-7390), MEP-816A (400 Hz) (NSN 6115-01-274-7395)
TM 9-6115-672-14	Operator, Unit, Direct Support and General Support Maintenance Manual, Generator Set, Skid-Mounted, Tactical Quiet, 60 kW, 50/60 and 400 Hz, MEP-806B (50/60 Hz) (NSN 6115-01-462-0291), MEP-816B (400 Hz) (NSN 6115-01-462-0292)
TM 9-6115-672-24P	Unit, Direct Support and General Support Maintenance Manual for Repair Parts and Special Tools List: Generator Set, Skid-Mounted, Tactical Quiet, 60 kW, 50/60 and 400 Hz, MEP-806B (50/60 Hz) (NSN 6115-01-462-0291), MEP-816B (400 Hz) (NSN 6115-01-462-0292)

TECHNICAL BULLETINS

TB 43-0125	Installation of Communications Electronic Equipment: Hookup of Electrical Cables to Mobile Generator Sets on Fielded Equipment to Meet Electrical Safety Standards
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LUBE ORDERS

LO 9-6115-645-12	Generator Set, Skid Mounted, Tactical Quiet 60 kW, 50/60 and 400Hz MEP-806A, Tactical Quiet, 50/60Hz, NSN 6115-01-274-7390, MEP-816A, Tactical Quiet, 400Hz, NSN 6115-01-274-7395
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FIELD MANUALS

FM 1-02	Multiservice Tactics, Techniques and Procedures for Nuclear, Biological and Chemical Defense Operations
FM 21-305	Manual for Wheeled Vehicle Driver
FM 3-11.4	Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection
FM 3-11.5	Multiservice Tactics, Techniques and Procedures for Chemical, Biological, Radiological and Nuclear Decontamination
FM 3-11-3	Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, and Nuclear Contamination Avoidance
FM 31-70	Basic Cold Weather Manual
FM 31-71	Northern Operations
FM 3-97.6	Mountain Operations
FM 4-25.11	First Aid
FM 5-20	Camouflage
FM 5-424	Theater of Operations, Electrical Systems
FM 7-1	Battle Focused Training
FM 9-207	Operation and Maintenance of Ordnance Materiel in Cold Weather (0 °F to -65 °F)

MISCELLANEOUS PUBLICATIONS

AR 700-138	Army Logistics Readiness and Sustainability
AR 735-11-2	Reporting of Supply Discrepancies
AR 750-1	Army Materiel Maintenance Policy and Retail Maintenance Operations
CTA 50-970	Expendable Items (Except Medical Class V, Repair Parts, and Heraldic Items)
CTA 8-100	Army Medical Department Expendable/Durable Items
TC 9-237	Operator's Circular, Welding Theory and Application
TM 750-244-2	Procedures for Destruction of Electronics Materiel to Prevent Enemy Use

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

INTRODUCTION FOR STANDARD TWO-LEVEL MAINTENANCE (MAC)

MAINTENANCE ALLOCATION CHART (MAC)

INTRODUCTION

The Army Maintenance System MAC

This introduction provides a general explanation of all maintenance and repair functions authorized at the two maintenance levels under the Two-Level Maintenance System concept.

This MAC (immediately following the introduction) designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions to the end item or component shall be consistent with the capacities and capabilities of the designated maintenance levels, which are shown on the MAC in column (4) as:

Field - includes two subcolumns, Crew (C) and Maintainer (F).

Sustainment - includes two subcolumns, Below Depot (H) and Depot (D).

The maintenance to be performed at field and sustainment levels is described as follows:

1. Crew maintenance. The responsibility of a using organization to perform maintenance on its assigned equipment. It normally consists of inspecting, servicing, lubricating, adjusting, and replacing parts, minor assemblies, and subassemblies. The replace function for this level of maintenance is indicated by the letter "C" in the third position of the SMR code. A "C" appearing in the fourth position of the SMR code indicates complete repair is possible at the crew maintenance level.
2. Maintainer maintenance. Maintenance accomplished on a component, accessory, assembly, subassembly, plug-in unit, or other portion either on the system or after it is removed. The replace function for this level of maintenance is indicated by the letter "F" appearing in the third position of the SMR code. An "F" appearing in the fourth position of the SMR code indicates complete repair is possible at the field maintenance level. Items are returned to the user after maintenance is performed at this level.
3. Below depot sustainment. Maintenance accomplished on a component, accessory, assembly, subassembly, plug-in unit, or other portion either on the system or after it is removed. The replace function for this level of maintenance is indicated by the letter "H" appearing in the third position of the SMR code. An "H" appearing in the fourth position of the SMR code indicates complete repair is possible at the below depot sustainment maintenance level. Items are returned to the supply system after maintenance is performed at this level.
4. Depot sustainment. Maintenance accomplished on a component, accessory, assembly, subassembly, plug-in unit, or other portion either on the system or after it is removed. The replace function for this level of maintenance is indicated by the letter "D" or "K" appearing in the third position of the SMR code. Depot sustainment maintenance can be performed by either depot personnel or contractor personnel. A "D" or "K" appearing in the fourth position of the SMR code indicates complete repair is possible at the depot sustainment maintenance level. Items are returned to the supply systems after maintenance is performed at this level.

The tools and test equipment requirements table (immediately following the MAC) lists the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from the MAC.

The remarks table (immediately following the tools and test equipment requirements) contains supplemental instructions and explanatory notes for a particular maintenance function.

Maintenance Functions

Maintenance functions are limited to and defined as follows:

1. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e.g., by sight, sound, or feel). This includes scheduled inspection and gaugings and evaluation of cannon tubes.
2. Test. To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics

of an item and comparing those characteristics with prescribed standards on a scheduled basis, i.e., load testing of lift devices and hydrostatic testing of pressure hoses.

3. Service. Operations required periodically to keep an item in proper operating condition; e.g., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases. This includes scheduled exercising and purging of recoil mechanisms. The following are examples of service functions:
 - a. Unpack. To remove from packing box for service or when required for the performance of maintenance operations.
 - b. Repack. To return item to packing box after service and other maintenance operations.
 - c. Clean. To rid the item of contamination.
 - d. Touch up. To spot paint scratched or blistered surfaces.
 - e. Mark. To restore obliterated identification.
4. Adjust. To maintain or regulate, within prescribed limits, by bringing into proper position, or by setting the operating characteristics to specified parameters.
5. Align. To adjust specified variable elements of an item to bring about optimum or desired performance.
6. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments of test, measuring, and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.
7. Remove/Install. To remove and install the same item when required to perform service or other maintenance functions. Install may be the act of emplacing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.
8. Paint (ammunition only). To prepare and spray color coats of paint so that the ammunition can be identified and protected. The color indicating primary use is applied, preferably, to the entire exterior surface as the background color of the item. Other markings are to be repainted as original so as to retain proper ammunition identification.
9. Replace. To remove an unserviceable item and install a serviceable counterpart in its place "Replace" is authorized by the MAC and assigned maintenance level is shown as the third position code of the Source, Maintenance and Recoverability (SMR) code.
10. Repair. The application of maintenance services, including fault location/troubleshooting, removal/installation, disassembly/assembly procedures and maintenance actions to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

NOTE

The following definitions are applicable to the "repair" maintenance function:

Services. Inspect, test, service, adjust, align, calibrate, and/or replace.

Fault location/troubleshooting. The process of investigating and detecting the cause of equipment malfunctioning; the act of isolating a fault within a system or Unit Under Test (UUT).

Disassembly/assembly. The step-by-step breakdown (taking apart) of a spare/functional group coded item to the level of its least component, that is assigned an SMR code for the level of maintenance under consideration (i.e., identified as maintenance significant).

Actions. Welding, grinding, riveting, straightening, facing, machining, and/or resurfacing.

11. Overhaul. That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.
12. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of material maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (e.g., hours/miles) considered in classifying Army equipment/components.

Explanation of Columns in the MAC

Column (1) Group Number. Column (1) lists Functional Group Code (FGC) numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the Next Higher Assembly (NHA).

Column (2) Component/Assembly. Column (2) contains the item names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

Column (3) Maintenance Function. Column (3) lists the functions to be performed on the item listed in column (2). (For a detailed explanation of these functions refer to "Maintenance Functions" outlined above).

Column (4) Maintenance Level. Column (4) specifies each level of maintenance authorized to perform each function listed in column (3), by indicating work time required (expressed as manhours in whole hours or decimals) in the appropriate subcolumn. This work time figure represents the active time required to perform that maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function varies at different maintenance levels, appropriate work time figures are to be shown for each level. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the MAC. The symbol designations for the various maintenance levels are as follows:

Field:

C Crew maintenance

F Maintainer maintenance

Sustainment:

L Specialized Repair Activity (SRA)

H Below depot maintenance

D Depot maintenance

NOTE

The "L" maintenance level is not included in column (4) of the MAC. Functions to this level of maintenance are identified by work time figure in the "H" column of column (4), and an associated reference code is used in the REMARKS column (6). This code is keyed to the remarks and the SRA complete repair application is explained there.

Column (5) Tools and Equipment Reference Code. Column (5) specifies, by code, those common tool sets (not individual tools), common Test, Measurement and Diagnostic Equipment (TMDE), and special tools, special TMDE and special support equipment required to perform the designated function. Codes are keyed to the entries in the tools and test equipment table.

Column (6) Remarks Code. When applicable, this column contains a letter code, in alphabetical order, which is keyed to the remarks table entries.

Explanation of Columns in the Tools and Test Equipment Requirements

Column (1) - Tool or Test Equipment Reference Code. The tool or test equipment reference code correlates with a code used in column (5) of the MAC.

Column (2) - Maintenance Level. The lowest level of maintenance authorized to use the tool or test equipment.

Column (3) - Nomenclature. Name or identification of the tool or test equipment.

Column (4) - National Stock Number (NSN). The NSN of the tool or test equipment.

Column (5) - Tool Number. The manufacturer's part number.

Explanation of Columns in the Remarks

Column (1) - Remarks Code. The code recorded in column (6) of the MAC.

Column (2) - Remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC.

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

MAINTENANCE ALLOCATION CHART (MAC)

Table 1. Maintenance Allocation Chart for Power Units PU-805, PU-805B, PU-806 and PU-806B Power Plants AN/MJQ-41 and AN/MJQ-41B.

(1) GROUP NUMBER	(2) COMPONENT / ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL				(5) TOOLS AND EQUIPMENT REF CODE	(6) REMARK CODES
			FIELD		SUSTAINMENT			
			CREW	MAINTAINER	BELOW DEPOT	DEPOT		
			C	F	H	D		
00	POWER PLANT/ POWER UNIT	Inspect	0.4					J
0100	GENERATOR SET	Inspect	0.2					J
		Inspect		0.5			1	J, L
		Test		2.0				F, G, L
		Service	0.3					E, F, G
		Service		0.3				E, F, G, L
		Adjust		0.3				F, G, L
		Repair		3.0				E, F, G, L
		Replace		3.0			1, 2	E, F, H, I
0200	ELECTRICAL SYS- TEM	Inspect	0.5					J
0201	CABLE ASSEMBLY, W19	Inspect	0.1					J
		Inspect		0.1				J
		Test		0.3			1, 2, 4	L
		Replace		0.6				I, L
		Repair		0.6			1, 2	K
0202	SWITCH BOX ASSEMBLY (A, B, & C SWITCH BOXES)	Inspect	0.1					J
		Inspect		0.1				J
		Replace		1.3			1	I, L
		Repair		1.0			1	
		Test		0.5			4	L
020201	LOAD TERMINAL WRENCH ASSEMBLY (A, B, & C SWITCH BOXES)	Inspect		0.1				J, L
		Replace		0.4			1	I, L
020202	CONTROL PANEL ASSEMBLY (A, B, & C SWITCH BOXES)	Inspect	0.1					J
		Inspect		0.1				J
		Replace		2.0			1	I
		Repair		0.5				L
02020201	LEADS/HARNESSES, W20 (A SWITCH BOX ONLY)	Inspect		0.1				
		Test		0.2			1, 2	
		Repair		0.9				K
		Replace		0.8				I
02020202	LIGHT, INDICATOR (A, B, & C SWITCH BOXES)	Test		0.2			1, 2, 4	L
		Replace		0.4			1, 2	I, L
020203	TERMINALS, LOAD (A, B, & C SWITCH BOXES)	Inspect	0.1					J
		Repair		0.2			1	L
		Replace		1.0			1	I, L
020204	LEADS/HARNESSES, W9 (A SWITCH BOX ONLY)	Inspect		0.1				
		Test		0.2			1, 2, 4	
		Repair		0.8			1, 4	K
		Replace		0.8				I

Table 1. Maintenance Allocation Chart for Power Units PU-805, PU-805B, PU-806 and PU-806B Power Plants AN/MJQ-41 and AN/MJQ-41B. - Continued

(1) GROUP NUMBER	(2) COMPONENT / ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL				(5) TOOLS AND EQUIPMENT REF CODE	(6) REMARK CODES
			FIELD		SUSTAINMENT			
			CREW	MAINTAINER	BELOW DEPOT	DEPOT		
			C	F	H	D		
020205	LEADS/HARNESSES, W10 (A, B, & C SWITCH BOXES)	Inspect Test Repair Replace		0.1 0.2 0.8 0.8			1, 2 1, 2, 4 1	J K, L I, L
020206	LEADS/HARNESSES, W17 (A, B, & C SWITCH BOXES)	Inspect Test Repair Replace		0.1 0.2 0.8 0.8			1, 2, 4 1, 2, 4 1	J K, L I, L
020207	LEADS/HARNESSES, W7 (A, B, & C SWITCH BOXES)	Inspect Test Repair Replace		0.1 0.2 0.8 0.8			1, 2, 4 1, 2, 4 1	J K, L I, L
020208	LEADS/HARNESSES, W11-W16, W21, W22 (A, B, & C SWITCH BOXES)	Inspect Test Repair Replace		0.1 0.2 0.8 0.8			1, 2, 4 1, 2, 4 1	J K, L I, L
020209	BUS BAR GROUND- ING (A SWITCH BOX ONLY)	Inspect Repair Replace		0.1 0.8 1.0			1, 4 1, 4	J L I, L
020210	CONTACTOR (A, B, & C SWITCH BOXES)	Test Replace		0.2 1.0			1, 4, 5 1	I, L
020211	POWER LEADS, W1-W5 (A, B, & C SWITCH BOXES)	Inspect Test Repair Replace		0.1 0.2 1.0 1.0			1, 2, 4 1, 4 1, 4	C, J I, L
020212	POWER SWITCH HARNESSES, W18 (A, B, & C SWITCH BOXES)	Inspect Test Repair Replace		0.1 0.2 0.2 0.4			1, 2, 4 1, 4 1	J I
020213	SWITCH BOX SUP- PORT	Inspect Replace		0.1 0.4			1	J, L I, L
0300	ACCESSORIES	Inspect	0.1					J
0301	OIL DRAIN AND FIRE EXTINGUISHER	Inspect Inspect	0.1	0.1				J J
0302	FUEL DRAIN ASSEMBLY	Inspect Replace Repair	0.1	1.2 0.6			1 1	J I G, K
0400	TRAILER ASSEMBLY	Inspect Inspect	0.2	0.2				J J, L
0401	REAR STEPS	Inspect Inspect Replace Repair	0.1	0.1 0.5 1.5			1 1, 3	C, J C, J, L H, L I, L
0402	ACCESSORY BOX	Inspect Repair Replace	0.1	0.5 0.4			1, 3 1	J L I, L
0403	FENDERS	Inspect Repair Replace	0.1	1.0 2.0			1, 3 1, 7	J I, L

Table 1. Maintenance Allocation Chart for Power Units PU-805, PU-805B, PU-806 and PU-806B Power Plants AN/MJQ-41 and AN/MJQ-41B. - Continued

(1) GROUP NUMBER	(2) COMPONENT / ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL				(5) TOOLS AND EQUIPMENT REF CODE	(6) REMARK CODES
			FIELD		SUSTAINMENT			
			CREW	MAINTAINER	BELOW DEPOT	DEPOT		
			C	F	H	D		
0404	BRAKE ASSEMBLY	Inspect Test Repair Replace		0.1 0.2 0.9 0.8			1, 2 1, 2 1	J G G, L I, L
0405	FRONT STEPS	Inspect Inspect Replace Repair	0.1	0.1 1.0 1.0			1 1, 3	C, J C, J, L H, I, L
0406	FRONT PLATFORM	Inspect Inspect Replace	0.2	0.2 1.0			1, 2	J J, L I, L
0407	GROUND STUD	Inspect Replace	0.1	1.0			1	J I, L
0408	TRAILER CHASSIS	Inspect Inspect Test Repair Replace	0.1	0.2 0.2 0.8 0.8			1, 2 1, 2 1	L G G I

Table 2. Tool And Test Equipment Requirements for Power Units PU-805, PU-805B, PU-806 and PU-806B Power Plants AN/MJQ-41 and AN/MJQ-41B.

TOOLS OR TEST EQUIPMENT	MAINTENANCE LEVEL	NOMENCLATURE	NATIONAL STOCK NUMBER	TOOL NUMBER
1	F	120VAC POWER SOURCE		
2	F	DRILL		
3	F	MULTIMETER	6625-01-265-6000	AN/PSM-45A
4	F	RIVET GUN, PNEUMATIC		
5	F	SHOP EQUIPMENT, STANDARD AUTOMOTIVE TOOL SET (SATS)	4910-01-490-6453	S25885
6	F	TOOL KIT, BODY AND FENDER REPAIR	5180-00-357-7731	SC5180-95-CL-N62
7	F	TOOL KIT, GENERAL MECHANIC'S OR STANDARD AUTOMOTIVE TOOL SET (SATS)	5180-00-177-7033	SC5180-95-CL-N26

Table 3. Remarks for Power Units PU-805, PU-805B, PU-806 and PU-806B Power Plants AN/MJQ-41 and AN/MJQ-41B.

REMARK CODES	REMARKS
A	AN/MJQ-41/41B UNIT A ONLY.
B	AAN/MJQ-41/41B UNIT B ONLY.
C	PU-805, PU-805B, PU-806, AND PU-806B ONLY.
D	REFER TO TM 9-6115-645-10 AND TM 9-6115-672-14 FOR GENERATOR SET OPERATOR MAINTENANCE.
E	REFER TO TM 9-6115-645-24 AND TM 9-6115-672-14 FOR GENERATOR SET FIELD AND HIGHER LEVEL MAINTENANCE.
F	REFER TO TM 9-2815-256-24 AND TM 9-2815-260-24 FOR ENGINE MAINTENANCE.
G	REFER TO TM 9-2330-205-14&P FOR TRAILER MAINTENANCE.
H	REMOVAL AND INSTALLATION ARE THE SAME AS REPLACEMENT.
I	REPLACE IS THE SAME AS REMOVAL AND INSTALLATION.
J	PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS).
K	REFER TO WP 0050 FOR REPAIR.
L	MAINTENANCE PERFORMED AS APPROPRIATE TO TOE.

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LISTS

INTRODUCTION

Scope

This work package lists COEI and BII for the power unit/power plant to help you inventory items for safe and efficient operation of the equipment.

General

The COEI and BII information is divided into the following lists:

Components of End Item (COEI). This list is for information purposes only and is not authority to requisition replacements. These items are part of the power unit/power plant. As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts. Items of COEI are removed and separately packaged for transportation or shipment only when necessary. Illustrations are furnished to help you find and identify the items.

Basic Issue Items (BII). These essential items are required to place the power unit/power plant in operation, operate it, and to do emergency repairs. Although shipped separately packaged, BII must be with the power unit/power plant during operation and when it is transferred between property accounts. Listing these items is your authority to request/requisition them for replacement based on authorization of the end item by the TOE/MTOE. Illustrations are furnished to help you find and identify the items.

Explanation of Columns in the COEI List and BII List

Column (1) Illustration Number. Gives you the number of the item illustrated.

Column (2) National Stock Number (NSN). Identifies the stock number of the item to be used for requisitioning purposes.

Column (3) Description, Part Number/(CAGEC). Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The stowage location of COEI and BII is also included in this column. The last line below the description is the part number and the Commercial and Government Entity Code (CAGEC) (in parentheses).

Column (4) Usable On Code. When applicable, gives you a code if the item you need is not the same for different models of equipment. These codes are identified below:

<u>Code</u>	<u>Used on</u>
YHJ	AN/MJQ-41
YFC	PU-805
EWA	PU-806
44F	AN/MJQ-41B
44J	PU-805B
44K	PU-806B

Column (5) U/I. Unit of Issue (U/I) indicates the physical measurement or count of the item as issued per the National Stock Number shown in column (2).

Column (6) Qty Rqr. Indicates the quantity required.

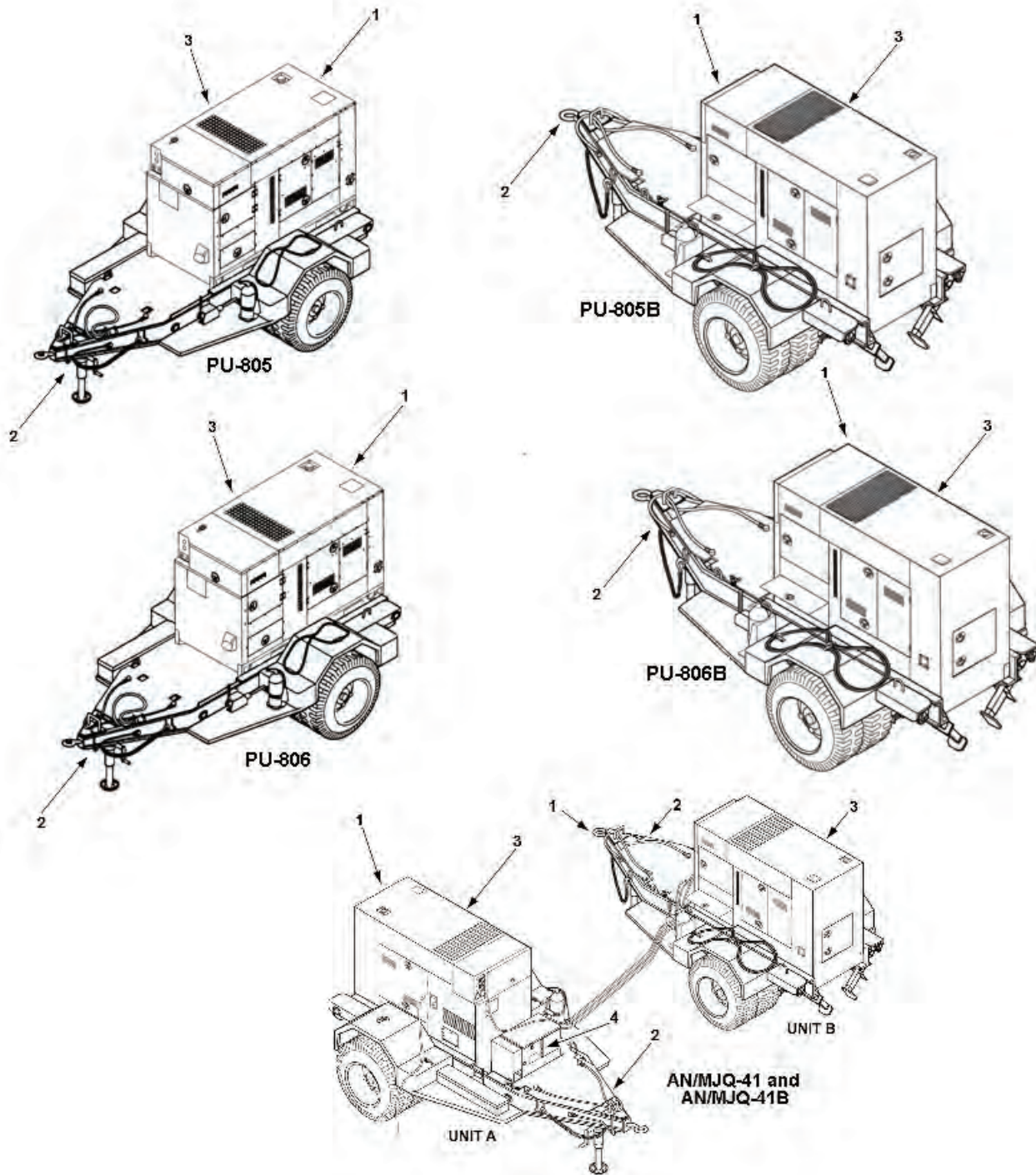


Table 1. Components of End Item List.

(1) Illus Number	(2) National Stock Number (NSN)	(3) Description, Part Number / (CAGEC)	(4) Usable On Code	(5) U/I	(6) Qty Rqr
1	6115-01-317-2134	PU-805		EA	1

Table 1. Components of End Item List. - Continued

(1) Illus Number	(2) National Stock Number (NSN)	(3) Description, Part Number / (CAGEC)	(4) Usable On Code	(5) U/I	(6) Qty Rqr
2	2330-00-331-2307	2.5 Ton Trailer, M200A1 13229E9332		EA	1
3	6115-01-274-7390	Generator, 60 kW 50/60Hz (MEP-806A)		EA	1
1	6115-01-471-1508	PU-805B		EA	1
2	2330-00-331-2307	2.5 Ton Trailer, M200A1 13229E9332		EA	1
3	6115-01-461-0291	Generator, 60 kW 50/60Hz (MEP-806B)		EA	1
1	6115-01-317-2133	PU-806		EA	1
2	2330-00-331-2307	2.5 Ton Trailer, M200A1 13229E9332		EA	1
3	6115-01-274-7395	Generator, 60 kW 400Hz (MEP-816A)		EA	1
1	6115-01-471-1507	PU-806B		EA	1
2	2330-00-331-2307	2.5 Ton Trailer, M200A1 13229E9332		EA	1
3	6115-01-461-0292	Generator, 60 kW 400Hz (MEP-816B)		EA	1
1	6115-01-303-7896	PP-AN/MJQ-41		EA	1
2	2330-00-331-2307	2.5 Ton Trailer, M200A1 13229E9332		EA	2
3	6115-01-274-7390	Generator, 60 kW 50/60Hz (MEP-806A)		EA	2
4	5930-01-391-1529	Switch Box (A, B or C Model) 13229E5795-3		EA	1
1	6115-01-474-3783	PP-AN/MJQ-41B		EA	1
2	2330-00-331-2307	2.5 Ton Trailer, M200A1 13229E9332		EA	2
3	6115-01-462-0291	Generator, 60 kW 50/60Hz (MEP-806B)		EA	2
4	5930-01-391-1529	Switch Box (B or C Model) 13229E5795-3		EA	1

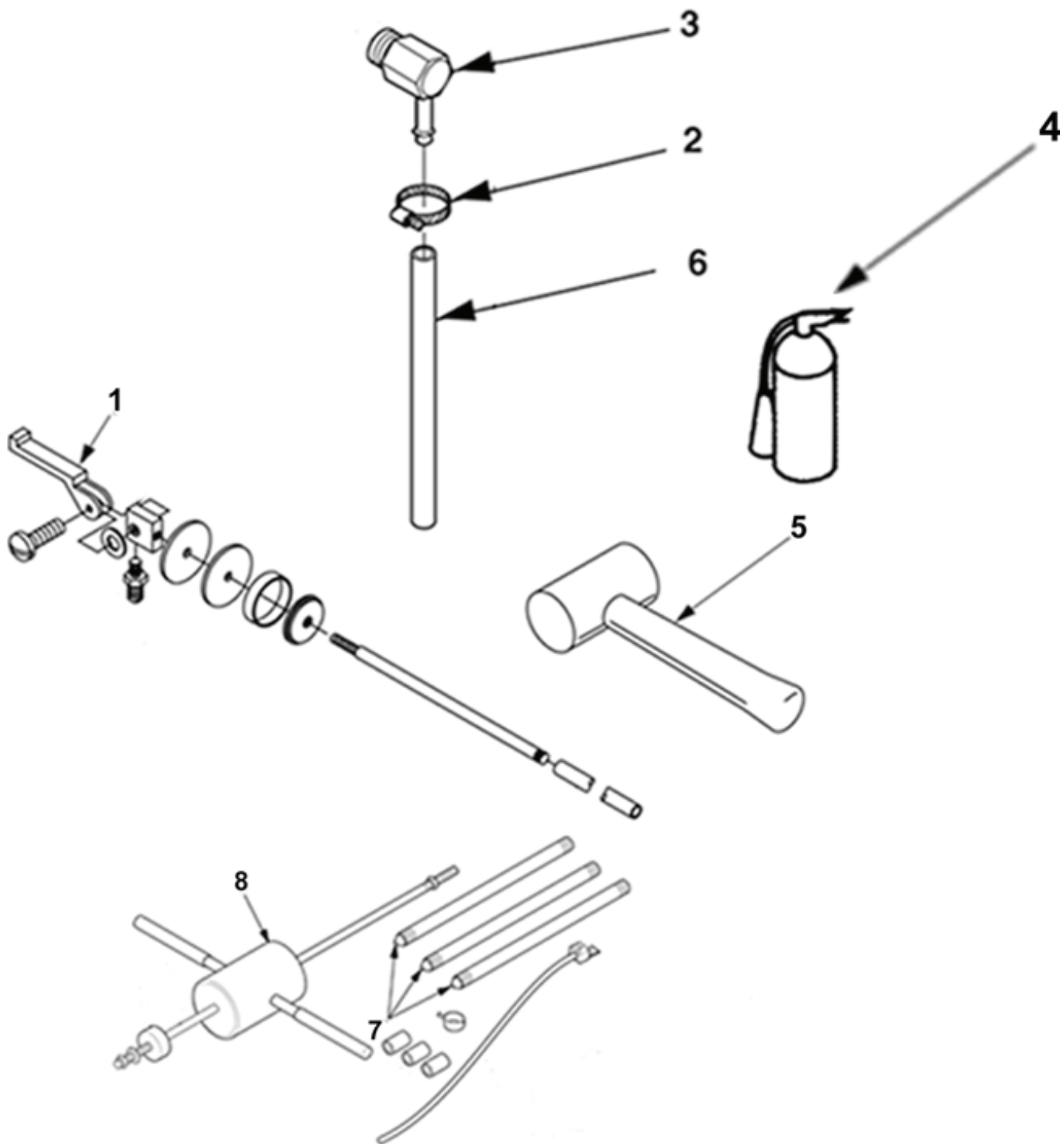


Figure 1. Items 1-8 Basic Issue Items.

***TM 9-6115-663-13&P**

TECHNICAL MANUAL

**OPERATOR AND FIELD MAINTENANCE MANUAL INCLUDING REPAIR PARTS
AND SPECIAL TOOLS LIST**

FOR

**POWER UNIT, DIESEL ENGINE DRIVEN, 2 ½ TON TRAILER
MOUNTED, 60 kW, 50/60 Hz**

PU-805

(NSN: 6115-01-317-2134) (EIC: VF3)

PU-805B

(NSN: 6115-01-471-1508) (EIC: VF4)

**POWER UNIT, DIESEL ENGINE DRIVEN, 2 ½ TON TRAILER
MOUNTED, 60 kW, 400 Hz**

PU-806

(NSN: 6115-01-317-2133) (EIC: VNB)

PU-806B

(NSN: 6115-01-471-1506) (EIC: GJT)

**POWER PLANT, DIESEL ENGINE DRIVEN, 2 ½ TON TRAILER
MOUNTED, 60 kW, 50/60 Hz**

AN/MJQ-41

(NSN: 6115-01-303-7896) (EIC: VF2)

AN/MJQ-41B

(NSN: 6115-01-474-3776) (EIC: VD6)

***SUPERSEDE NOTICE** - This manual supersedes TM 9-6115-663-13-P dated 15 October 1993. Date of issue for the revised manual is: 30 April 2010.

DISTRIBUTION STATEMENT A - Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY
30 APRIL 2010

Figure 2. Item 9 Basic Issue Items. TM 9-6115-663-13&P.

NOTE

The following UOCs apply to all illustrations on the BII list: YHJ, YFC, EWA, 44F, 44J and 44K.

Table 2. Basic Issue Items List.

(1) Illus Number	(2) National Stock Number (NSN)	(3) Description, Part Number / (CAGEC)	(4) Usable On Code	(5) U/I	(6) Qty Rqr
1	5342-00-066-1235	Adapter Assembly, Fuel Drum 13211E7541 (06076)		EA	1
2	4730-01-470-2409	Clamp, Hose, Low Pressure, Type F, Size 12, SAE J1508 88-20561-2 (30554)		EA	2
3	4730-00-809-9703	Elbow, Pipe to Hose 13236380-4 (97403)		EA	2
4	4210-01-361-6921	Extinguisher, Fire, Carbon Dioxide 322 (54905)		EA	2
5	5120-00-251-4489	Hammer, Hand, Engineers, Double, 8# A-A-1293 (58536)		EA	2
6	4720-01-386-4210	Hose, Nonmetallic 160-12-24 (98441)		EA	2
7	5975-00-878-3791	Rods, Ground (with attachments), Sectional 9 Ft. A-A-55804-III-B (58536)		EA	2
8	5120-01-013-1676	Slide Hammer, Ground Rod 13226E7741 (97403)		EA	2
9		TM 9-6115-663-13&P		EA	2

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

ADDITIONAL AUTHORIZATION LIST (AAL)

ADDITIONAL AUTHORIZATION LIST (AAL)

INTRODUCTION

Scope

This work package lists additional items you are authorized for the support of the PU-805, PU-805B, PU-806, PU-806B, AN/MJQ-41, and AN/MJQ-41B.

General

This list identifies items that do not have to accompany the PU-805, PU-805B, PU-806, PU-806B, AN/MJQ-41, and AN/MJQ-41B and that do not have to be turned in with it. These items are all authorized to you by CTA, MTOE, TDA, or JTA.

Explanation of Entries in the AAL

Column (1) National Stock Number (NSN). Identifies the stock number of the item to be used for requisitioning purposes.

Column (2) Description, Part Number/(CAGEC). Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The last line below the description is the part number and the Commercial and Government Entity Code (CAGEC) (in parentheses).

Column (3) Usable On Code. When applicable, gives you a code if the item you need is not the same for different models of equipment. These codes are identified below:

<u>Code</u>	<u>Used on</u>
YHJ	AN/MJQ-41
YFC	PU-805
EWA	PU-806
44F	AN/MJQ-41B
44J	PU-805B
44K	PU-806B

Column (4) U/I. Unit of Issue (U/I) indicates the physical measurement or count of the item as issued per the National Stock Number shown in column (1).

Column (5) Qty Recm. Indicates the quantity recommended.

Table 1. Additional Authorization List.

(1) National Stock Number (NSN)	(2) Description, Part Number / (CAGEC)	(3) Usable On Code	(4) U/I	(5) Qty Recm
5342-00-066-1235	ADAPTER, CONTAINER 13211E7541 (97403)		EA	1
5999-00-186-3912	CLAMP		EA	1
5975-00-794-2523	COUPLINGS, (THREE IN SET)		EA	1

Table 1. Additional Authorization List. - Continued

(1) National Stock Number (NSN)	(2) Description, Part Number / (CAGEC)	(3) Usable On Code	(4) U/I	(5) Qty Recm
5975-00-924-9927	DRIVE/HEAD STUD		EA	1
4210-00-361-6921	EXTINGUISHER, FIRE, CARBON DIOXIDE, 5 LB 322 (54905)		EA	1
7240-00-177-6154	FLEXIBLE SPOUT		EA	1
7240-01-337-5269	FUEL CAN		EA	1
5940-00-271-9504	GROUND TERMINAL LUG		EA	1
5120-01-013-1676	HAMMER, SLIDE 0116-1810 (93742)		EA	1
5310-01-365-5788	NUT, SELF LOCKING HEXAGON, PREVAILING TORQUE 88-21930-2 (30554)		EA	1
4710-00-185-6948	PIPE 13211E75431 (97403)		EA	1
4710-00-597-8731	PIPE, EXTENSION 1311E7542 (97403)		EA	1
5975-00-878-3791	RODS, GROUND (WITH ATTACHMENTS), SECTIONAL 9 FT AA55804-III-B (58536)		EA	1
5310-01-477-1264	WASHER, FLAT 88-20564-15 (30554)		EA	1
6145-00-395-8799	WIRE, ELECTRICAL, NO. 6 AWG, 7 STRANDS, CLASS B, TEMPER, 6FT LONG ASTM B8		EA	1
5100-00-494-1911	WRENCH, PLIER, CURVED JAW GGG-W-00649, TYPE 1, CLASS2, STYLE B (81348)		EA	2

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

60 kW 50/60 AND 400 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANT

EXPENDABLE AND DURABLE ITEMS LIST

EXPENDABLE AND DURABLE ITEMS LIST

Scope

This work package lists expendable and durable items that you will need to operate and maintain the (enter equipment/end item name). This list is for information only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (Except Medical, Class V Repair Parts, and Heraldic Items), CTA 50-909, Field and Garrison Furnishings and Equipment or CTA 8-100, Army Medical Department Expendable/Durable Items.

Explanation of Columns in the Expendable/Durable Items List

Column (1) Item No. This number is assigned to the entry in the list and is referenced in the narrative instructions to identify the item (e.g., Use brake fluid (WP 0097, item 5)).

Column (2) Level. This column identifies the lowest level of maintenance that requires the listed item (include as applicable: C = Crew, O = AMC, F = Maintainer or ASB, H = BelowDepot or TASM, D = Depot).

Column (3) National Stock Number (NSN). This is the NSN assigned to the item which you can use to requisition it.

Column (4) Item Name, Description, Part Number/(CAGEC). This column provides the other information you need to identify the item. The last line below the description is the part number and the Commercial and Government Entity Code (CAGEC) (in parentheses).

Column (5) U/I. Unit of Issue (U/I) code shows the physical measurement or count of an item, such as gallon, dozen, gross, etc.

Table 1. Expendable and Durable Items List.

(1) Item No.	(2) Level	(3) National Stock Number (NSN)	(4) Item Name, Description, Part Number / (CAGEC)	(5) U/I
1	F	6850-01-331-3349	Cleaning compound solvent P-D-680 (81348)	EA
2	F	6850-01-331-3350	Cleaning compound solvent P-D-680 (81348)	EA
3	F	9150-00-190-0904	Grease Automotive/Artillery GAA MIL-PRF-10924 (81349)	EA
4	F	9150-00-189-6727	Oil Lubrication OE/HDO-10 MIL-PRF-2104 (81349)	EA
5	F		Solder Sn60Pb40 (81348)	EA
6	F	8040-00-664-4318	Adhesive 9995460 (18876)	EA
7	F	7920-00-140-0869	Rag, Wiping 8722-0088 (03950)	Box

END OF WORK PACKAGE

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ITEM	PAGE	PARA-GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON	
1	WP0005 PG 3		2			Test or Corrective Action column should identify a different WP number.	
TYPED NAME, GRADE OR TITLE Jane Q. Doe, SFC						TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION 123-4567	SIGNATURE

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Official:

A handwritten signature in black ink, appearing to read "Joyce E. Morrow".

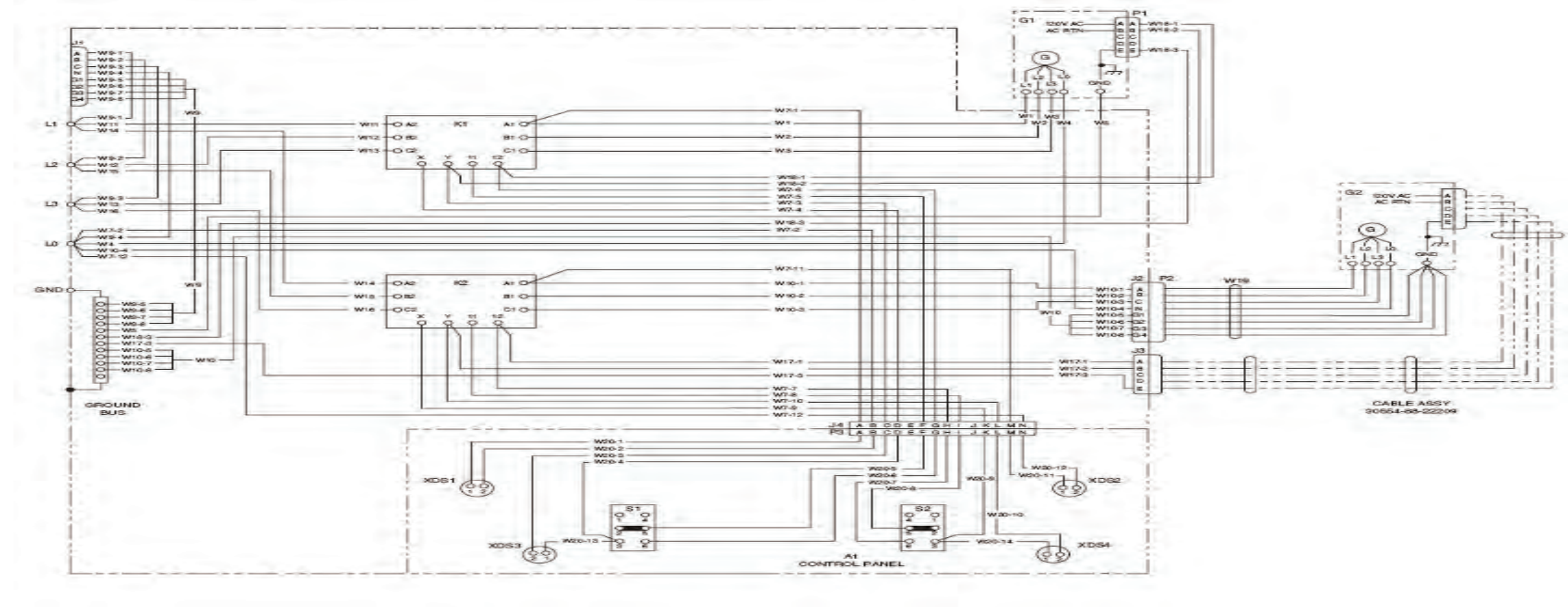
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*Administrative Assistant to the
Secretary of the Army*

1013101

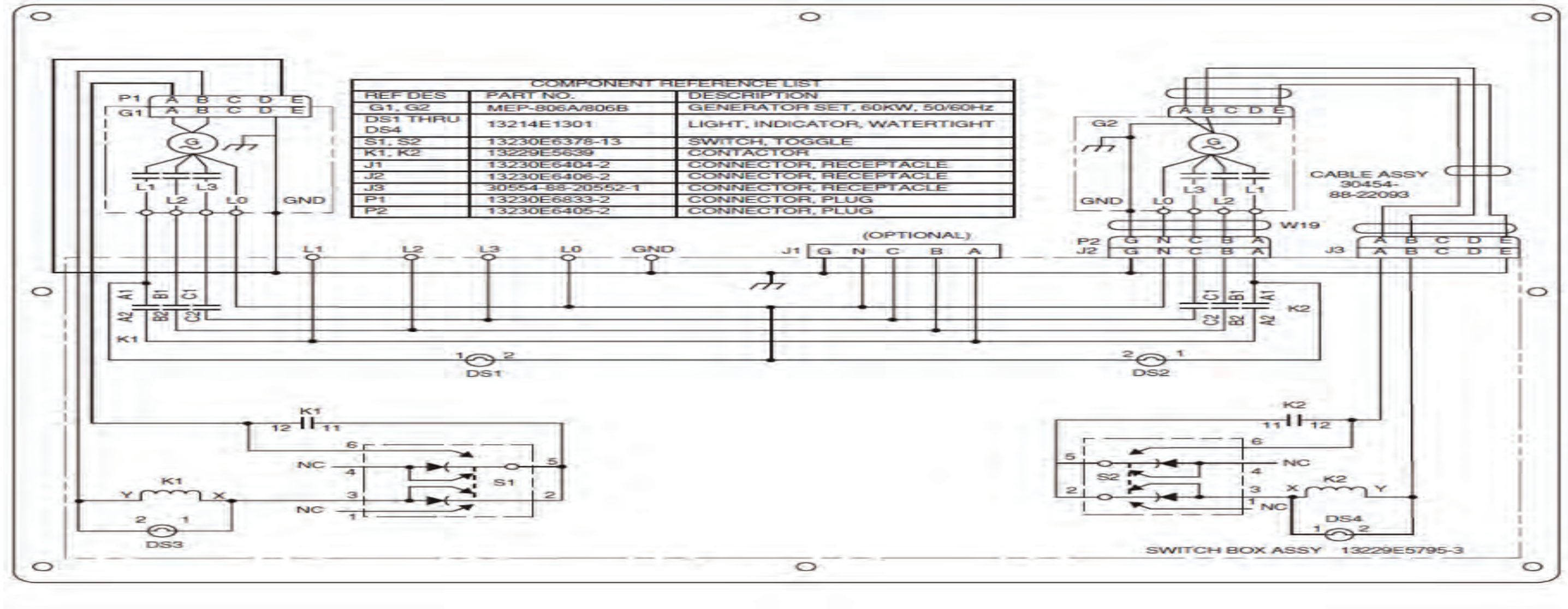
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FO 1. Power Plant Wiring Diagram.



FO 2. Power Plant Schematic.

THE METRIC SYSTEM AND EQUIVALENTS

LINEAR MEASURE

1 Centimeter = 10 Millimeter = 0.01 Meters = 0.3937 inches
 1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 inches
 1 kilometer = 1000 Meters = 0.621 Miles

WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
 1 Kilogram = 100 Grams = 2.2 lb.1 Cu. Meter = 1,000,000
 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Millimeter = 0.001 Liters = 0.0338 Fluid Ounces
 1 Liter = 1000 Millimeters = 32.82 Fluid Ounces

SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeter = 0.155 Sq. Inches
 1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Inches
 1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches
 1 Cu. Centimeters = 35.31 Cu. Feet

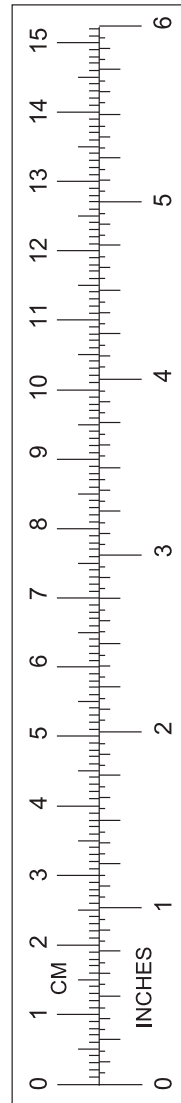
TEMPERATURE

$5/9 (^{\circ}\text{F} - 32) = ^{\circ}\text{C}$
 212° Fahrenheit is equivalent to 100° Celsius
 90° Fahrenheit is equivalent to 32.2° Celsius
 32° Fahrenheit is equivalent to 0° Celsius
 $9/5 ^{\circ}\text{C} + 32 = ^{\circ}\text{F}$

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches.....	Centimeters.....	2.540
Feet.....	Meters.....	0.305
Yards.....	Meters.....	0.914
Miles.....	Kilometers.....	1.609
Square Inches.....	Square Centimeters.....	6.451
Square Feet.....	Square Meters.....	0.093
Square Yards.....	Square Meters.....	0.836
Square Miles.....	Square Kilometers.....	2.590
Acres.....	Square Hectometers.....	0.405
Cubic Feet.....	Cubic Meters.....	0.028
Cubic Yards.....	Cubic Meters.....	0.765
Fluid Ounces.....	Milliliters.....	29.573
Pints.....	Liters.....	0.473
Quarts.....	Liters.....	0.946
Gallons.....	Liters.....	3.785
Ounces.....	Grams.....	28.349
Pounds.....	Kilograms.....	0.454
Short Tons.....	Metric Tons.....	0.907
Pound-Feet.....	Newton-Meters.....	1.356
Pounds per Square Inch.....	Kilo pascals.....	6.895
Miles per Gallon.....	Kilometers per Liter.....	0.425
Miles per Hour.....	Kilometers per Hour.....	1.609

TO CHANGE	TO	D I V I D E B Y
Centimeters.....	Inches.....	2.540
Meters.....	Feet.....	0.305
Meters.....	Yards.....	0.914
Kilometers.....	Miles.....	1.609
Square Centimeters.....	Square Inches.....	6.451
Square Meters.....	Square Feet.....	0.093
Square Meters.....	Square Yards.....	0.836
Square Kilometers.....	Square Miles.....	2.590
Square Hectometers.....	Acres.....	0.405
Cubic Meters.....	Cubic Feet.....	0.028
Cubic Meters.....	Cubic Yards.....	0.765
Milliliters.....	Fluid Ounces.....	29.573
Liters.....	Pints.....	0.473
Liters.....	Quarts.....	0.946
Liters-Meters.....	Gallons.....	3.785
Grams.....	Ounces.....	28.349
Kilograms.....	Pounds.....	0.454
Metric Tons.....	Short Tons.....	0.907
Newton-Meters.....	Pound-Feet.....	1.356
Kilo pascals.....	Pounds per Square Inch.....	6.895
Kilometers per Liter.....	Miles per Gallon.....	0.425
Kilometers per Hour.....	Miles per Hour.....	1.609



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